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PERSONAL.

Mr. Edmund D. Codman, Vice-President of the Fitchburg R. R., has been elected President, with office at Boston, Mass.

Mr. R. S. Hale, Assoc. M. Am. Soc. M. E., has been appointed Consulting Engineer of the Mutual Boiler Insurance Co., of Boston, Mass.

Capt. Charles C. Doten, civil engineer, has been appointed a member of the Board of Harbor and Land Commissioners, of Boston, Mass., to succeed Mr. Charles H. Howland, resigned.

Mr. Charles Sooysmith, M. Am. Soc. C. E., of the firm of Sooysmith & Co., consulting and contracting engineers, of New York city, sailed for Europe, Feb. 12, to be gone about three months.

Mr. H. A. Mansfield, formerly City Engineer, of Indianapolis, Ind., has opened an office in the Stevenson Building, in that city, as a consulting engineer for waterworks, sewerage and municipal works.

Mr. James F. Weed, civil engineer, of Houston, Tex., has been appointed Chief Engineer of the Gulf, Beaumont & Kansas City R. R., and will shortly start a party in the field with a view to extending the road.

Mr. Alfred Petry, M. Am. Soc. C. E., formerly Assistant Engineer of the new water-works at Evansville, Ind., has been placed in charge of the construction of the foundations for the permanent pumping stations and the intake pier and tunnel for the new water-works at Cincinnati, O.

Mr. Charles H. Rust, Deputy City Engineer, has been appointed City Engineer of Toronto, Ont., succeeding Mr. E. H. Keating, M. Am. Soc. C. E., who has accepted the position of Manager of the Toronto Railway Co., as was noted in our issue of Jan. 27.

Mr. J. J. Booth, for 22 years a member of the firm of Booth & Flinn, contractors for municipal work, of Pittsburg, Pa., has disposed of his interest in the business to Mr. George H. Flinn, eldest son of Senator William Flinn, and the business will be continued by them under the old name.

Mr. William W. Locke, Assoc. M. Am. Soc. C. E., formerly Sanitary Engineer to the Department of Health of Brooklyn, N. Y., in charge of the Bureau of Plumbing and Drainage for the past three years, will open an office at Room 29, Arbuckle Building, in that city, as a sanitary engineer, making a specialty of garbage disposal and the sanitary inspection of buildings.

Dr. Louis Duncan, Assoc. M. Am. Inst. E. E., formerly Electrician of the Fort Wayne Electric Corp., Fort Wayne, Ind., has been appointed Electrical Engineer of the Third Avenue Ry. Co., of New York city, and will have charge of the changing of the motive power from cable to electricity. Dr. Duncan will also continue his work at the Johns Hopkins University, Baltimore, Md.

Mr. J. B. Berry, Chief Engineer of the Fremont, Elkhorn & Missouri Valley R. R. & Sioux City & Pacific R. R., with headquarters at Omaha, Neb., has been appointed Chief Engineer of the Union Pacific System to succeed Mr. G. H. Pegram, M. Am. Soc. C. E., whose appointment as Consulting Engineer for the Manhattan Ry. of New York city was noted in our issue of Feb. 3.

Mr. L. H. Wheaton, General Superintendent and Chief Engineer of the Coast Ry. of Nova Scotia, with offices at Yarmouth, N. S., has been honored by the presentation of an address signed by citizens of that city and accompanied by a handsome marble clock and a gold-headed cane, suitably engraved, in recognition of his efficient management of the road and the resulting benefit to the various communities through which it passes.

Mr. Alvah Horton Savin, Assoc. M. Am. Soc. C. E., of the firm of Edward Smith & Co., has been appointed lecturer in the Engineering Department of New York University on "Paints and Preservative Coatings." The paper by Prof. Savin in our issue of Jan. 27 was condensed from one of the lectures by Prof. Savin before the students of that institution, and not at the Rensselaer Polytechnic Institute, as was stated by us in a foot note.

Mr. John C. Waite, M. Am. Soc. C. E., has opened an office in the American Surety Building, 100 Broadway, New York city, and will act as attorney and counselor in cases involving engineering and architectural jurisprudence. He is a graduate of Cornell University and of the Harvard Law School. He was for some years a member of the faculty of the Lawrence Scientific School at Cambridge, and has also been a member of the staff of "The Railroad Gazette." He is the author of an extended treatise on engineering and architectural jurisprudence, which was reviewed in our issue of Feb. 10.

OBITUARY.

Mr. James R. Taylor, electrical engineer, of Brooklyn, N. Y., died Feb. 10, aged 62.

Dr. Oscar A. Menocal, eldest son of Mr. A. G. Menocal, M. Am. Soc. C. E., Civil Engineer, U. S. Navy, died at his father's home in Brooklyn, N. Y., Feb. 9, aged 28.

Mr. Augustus S. Whiton, formerly connected with engineering department of the Erie Ry., and later engaged in the railway supply business, died in New York, Feb. 7, aged 68.

Maj. James H. Wood, civil engineer, died at Los Angeles, Cal., Feb. 5. He was a veteran of the Civil War and afterwards was connected with the engineering department of the Union Pacific Ry.

Mr. James M. Kimball, civil engineer, of Bangor, Me., died Feb. 11, aged 26. He was a graduate of the University of Maine, and at the time of his death was in the service of the Bangor & Aroostook R. R.

Mr. Henry Ward Johns, President of the H. W. Johns Mfg. Co., of New York city, and of the Johns-Pratt Co., Hartford, Conn., died at his home in Yonkers, N. Y., Feb. 8, aged 61. He was best known through his connection with the asbestos industry, of which he was the pioneer in this country, having been interested in it since 1858.

Mr. John Edmund Ridall, of the Brush Electric Co., Cleveland, O., died at his home in Pittsburg, Pa., Feb. 9. At a meeting of the stockholders of the Allegheny County Light Co., Pittsburg, which was held at the same time at which his death occurred, he had been elected a director of the company. He was born in Pittsburg, March 27, 1850, and began his business career at banking in that city. Later he went into the electrical field as a member of the firm of Ridall & Ingalls, from which firm grew the Allegheny County Light Co. He is said to have been instrumental in introducing the electric light in Pittsburg.

Mr. Benjamin S. Janney, Jr., Vice-President of the Pottstown Iron Co., Pottstown, Pa., and Chairman of the Joint Executive Committee on the Improvement of the Philadelphia Harbor and the Delaware and Schuylkill Rivers, died at his home in Philadelphia, Feb. 14, aged 81. He was educated at Kenyon College, Gambier, O., and entered the wholesale grocery business, in which he continued for over 50 years. He was deeply interested in the work of improving the harbor of Philadelphia and the waterways leading to the city, and was one of the inaugurators of the movement.

Mr. Randell Hunt, M. Am. Soc. C. E., of San Francisco, Cal., died there, Jan. 24, aged 41. He was graduated from Yale University in 1876 as a civil engineer, and was engaged in the Department of Parks, of New York city, until 1878, when he went to Dakota and engaged in surveying and bridge building. In 1888 he went to San Francisco, and is said to have been instrumental in having the harbor commissioners place concrete foundations at the foot of Market St. in preference to the caisson system. He did some important work in dam building for the Turlock and Modesto irrigation districts, and was chosen last year by Congress to decide the conflicting claims to harbor improvement at San Pedro and Santa Monica, Cal.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

CHICAGO ELECTRICAL ASSOCIATION.
Feb. 18. "Electricity in Medicine," E. W. Jewell.
Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.

THE ENGINEERS' CLUB OF PHILADELPHIA.
Feb. 19. "The Dome of the City Hall Tower at Philadelphia," Francis Schumann.
Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.

ENGINEERS' CLUB OF COLUMBUS.
Feb. 19. Secy., M. S. Hopkins, 14½ N. High St., Columbus, O.

TECHNICAL CLUB OF OMAHA.
Feb. 21. Secy., J. Harry Lawrie, Omaha, Neb.

ENGINEERS' CLUB OF MINNEAPOLIS.
Feb. 21. Secy., Elbert Nexsen, 1620 S. E. 4th St., Minneapolis, Minn.

CIVIL ENGINEERS' CLUB OF CLEVELAND.
Feb. 22. Secy., Wm. H. Searles, Case Library Bldg., Cleveland O.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.
Feb. 23. Secy., R. W. Pope, 26 Cortlandt St., New York city.

FRANKLIN INSTITUTE.
Feb. 23. "The Telephone Exchange," Herbert L. Webb.
Feb. 24. "Japanese Swords," Capt. E. L. Zalinski.
Feb. 25. "The Disposal of Garbage," Rudolph Hering.
Secy., Wm. H. Wahl, 15 S. Seventh St., Philadelphia, Pa.

ENGINEERING ASSOCIATION OF THE SOUTH.
Feb. 24. Secy., C. B. Wilson, Nashville, Tenn.

INDIANAPOLIS ENGINEERING CLUB.
Feb. 26. Secy., Edson F. Folsom, Indianapolis, Ind.

ENGINEERS' CLUB OF ST. LOUIS.
Mar. 2. Secy., Richard McCulloch, St. Louis, Mo.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
Mar. 2. Secy., C. W. Hunt, 220 West 57th St., New York city.

CANADIAN SOCIETY OF CIVIL ENGINEERS.
Mar. 3. Secy., C. H. McLeod, 112 Mansfield St., Montreal, Canada.

BROOKLYN ENGINEERS' CLUB.
Mar. 3. Secy., A. J. Provost, Jr., 191 Montague St., Brooklyn, N. Y.

TECHNICAL SOCIETY OF THE PACIFIC COAST.
Mar. 4. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.

CIVIL ENGINEERS' SOCIETY OF ST. PAUL.
Mar. 7. Secy., C. L. Annan, City Engineers' Office, St. Paul, Minn.

ENGINEERS' SOCIETY OF WESTERN NEW YORK.
Mar. 7. Secy., H. J. March, Library Bldg., Buffalo, N. Y.

DENVER SOCIETY OF CIVIL ENGINEERS.
Mar. 8. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Col.

NORTHWEST RAILWAY CLUB.
Mar. 8. Secy., T. A. Foque, Soo Line, Minneapolis, Minn.

RAILWAY SIGNALING CLUB.
Mar. 8. Pittsburg, Pa. Secy., Earl M. Seitz, C. & N. W. Ry., Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.
Mar. 9. Secy., Edward L. Jones, P. O. Box 1158, Boston, Mass.

CENTRAL RAILWAY CLUB.
Mar. 11. Secy., H. D. Vought, "Courier," Buffalo, N. Y.

NORTHWESTERN TRACK AND BRIDGE ASSOCIATION.
Mar. 11. Secy., D. W. Meeker, St. Paul, Minn.

ST. LOUIS RAILWAY CLUB.
Mar. 11. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.

MONTANA SOCIETY OF ENGINEERS.
Mar. 12. Secy., Albert S. Hovey, Helena, Mont.

ENGINEERS' CLUB OF KANSAS CITY.
Mar. 14. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
Mar. 15. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.

WESTERN RAILWAY CLUB.
Mar. 15. Secy., F. M. Whyte, 225 Dearborn St., Chicago, Ill.

BOSTON SOCIETY OF CIVIL ENGINEERS.
Mar. 16. Secy., S. E. Tinkham, City Hall, Boston, Mass.

WESTERN FOUNDRYMEN'S ASSOCIATION.
Mar. 16. Secy., A. Sorge, Jr., 1020 Monadnock Block, Chicago, Ill.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Mar. 16. Secy., Frank H. Olmsted, Los Angeles, Cal.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Mar. 17. Secy., F. A. Charpiot, Macon, Ga.

ENGINEERS' CLUB OF CINCINNATI.
Mar. 17. Secy., J. F. Wilson, P.O. Box 333, Cincinnati, O.

NEW YORK RAILROAD CLUB.
Mar. 17. Secy., W. W. Wheatly, 168 Montague St., Brooklyn, N. Y.

ENGINEERING ASSOCIATION OF THE SOUTH.
Mar. 24. Secy., C. B. Wilson, Nashville, Tenn.

THE AMERICAN SOCIETY OF IRRIGATION ENGINEERS.
Mar. 25-26. Annual Meeting, Denver, Colo. Secy., John S. Titcomb, 38 Jacobson Block, Denver, Colo.

ILLINOIS STREET RAILWAY ASSOCIATION.
May 18. Annual meeting. Secy., C. K. Minary, Springfield City R. R., Springfield, Ill.

CIVIL ENGINEERS' SOCIETY OF ST. PAUL.—A regular meeting of this Society was held Feb. 7. After a discussion of a program for the coming year, President Estabrook read a paper on "Mining Pennsylvania Anthracite Coal Thirty Years Ago." The lecture was illustrated with lantern views. C. L. Annan, Secy.

THE ENGINEERS' CLUB OF PHILADELPHIA.—The regular meeting of this club was held Feb. 5, with 81 members and visitors present. Gen. Roy Stone, Director Office of Road Inquiry, Department of Agriculture, presented the paper of the evening upon "Various Phases of the Road Question." L. F. Rondinella, Secy.

RAILWAY SUPPLY MEN.—The Standing Committee of the Railway Supply Men for the M. C. B. and M. M. convention of 1898 have issued a preliminary circular outlining the method to be followed in applying for exhibition space, the rates for cartage and other points of interest to prospective exhibitors. Hotel rates and other matters of general interest are also briefly given.

MASSACHUSETTS HIGHWAY ASSOCIATION.—This Association held its annual dinner in Boston, Mass., Feb. 8, with 70 members present. The following officers were elected for the ensuing year: Pres., Prof. C. F. Allen, Boston; Vice-Pres., S. S. Merrill, Salem; Secy., C. R. Carter, Boston; Treas., W. L. Dickinson, Springfield; Directors, A. H. Kimball and Charles Mills, Winchester.

ENGINEERS' CLUB OF COLUMBUS.—The annual meeting of this club was held at Columbus, O., Feb. 5. Reports of officers were submitted and afterwards the election of officers for the ensuing year was held. This resulted in the following list: Pres., Julian Griggs; Vice-President, Arthur Williston; Secy. and Librarian, Harry M. Gates; Treasurer, William Michel; Directors, W. F. Kelly and E. A. Kemmler.

AMERICAN CHEMICAL SOCIETY.—The New York section of this society held a regular meeting on Feb. 4. Dr. Wm McMurtrie performed several experiments, using about a half gallon of liquid air obtained from Mr. Tuper. Papers were also read as follows: "Determination of Boric Acid," T. S. Gladding; "Recent Progress in the Chemistry of the Leather Industry," J. H. Yocum; "Review of Chemical and Physical Methods for Examining Documents and Handwriting," C. A. Doremus.

THE ENGINEERS' SOCIETY OF WESTERN NEW YORK.—This Society held an interesting meeting in Buffalo, N. Y., Feb. 7, at which the engineering outlook in that vicinity was discussed. Mr. Geo. W. Rafter, Rochester, talked upon the advisability of state regulations governing the practice of engineers and the consequent elevation of the profession to where it rightfully belongs. This, he said, could best be done by the Society, aided by the co-operation of prominent engineers in the state petitioning the legislature for such enactments. A committee was appointed to investigate the subject and report at the next meeting. The Society passed a resolution requesting the

State Superintendent of Public Works to have plans and specifications of proposed work on file in Buffalo for the benefit of engineers, contractors and other interested citizens. H. J. March, Secy.

THE FOUNDRYMEN'S ASSOCIATION.—On Feb. 2 the 75th regular meeting of the association was held at the Manufacturers' Club, Philadelphia, Pa. Routine business was transacted and resolutions endorsing the gold standard and the sentiments expressed by President McKinley at the recent Manufacturers' Convention in New York city were passed. The paper of the evening on "Cupolo Swings," was read by Linson H. De Voe. In this the different methods of lining were described. A detailed table of costs for lining and repairing a 60-in. shell for the period of one year was included.

CENTRAL STATES WATER-WORKS ASSOCIATION.—A meeting of the Ohio State Water-Works Association was held at Columbus, O., Feb. 7-8 (Eng. News, Jan. 13, 1898). During the course of the meeting the idea of increasing the scope of the Society to include other states, thus forming the Central States Water-Works Association, was proposed by Mr. Willis P. Tharp, chief engineer of the Cincinnati Water-Works, who suggested that the organization include Ohio, Indiana, Illinois, Kentucky, West Virginia and the western part of Pennsylvania. He further compared the proposed organization with the New England Water-Works Association, and offered many suggestions relative to the formation of a central states association, which were adopted. The following officers were elected for 1898: Pres., Jerry O'Shaughnessy, Columbus; Secy., John Fisher, Hamilton; Treas., Chas. E. Rowe.

CIVIL ENGINEERS' CLUB OF CLEVELAND.—At the regular meeting, on Feb. 8, Mr. Walter C. Parmley read a paper entitled "Rainfall and Runoff in Relation to Sewerage Problems." This was an elaborate discussion of the theory of sewer discharge combined with many practical suggestions from actual experience. He exhibited a number of charts indicating the character, intensity and duration of storms as recorded in different parts of the country, showing that those of greatest maximum for short periods may not always tax the sewers so much as others of a more steady downfall. He showed the importance of considering the direction of the flow in sewers in relation to the direction of the movement of prevailing storms. Where the directions coincide the sewers are more heavily taxed than in other cases. He suggested some new mathematical expressions for the time required for storm water to pass through a sewer of varying diameters. He proposed to increase the exponent of the area A in the formula for discharge of sewers from ⅓, as commonly used, to ⅝, which gives a relatively larger discharge for large drainage areas, while giving about the same results for small areas, and agrees better with the experience in the city of Cleveland. An interesting discussion followed, after which Mr. Ambrose Swasey presented the club with two valuable photographs of the Forth Bridge of Scotland. He said that when he last visited the bridge, 50 men were engaged in painting the structure, and it was estimated that three years would be required to finish the work, during which time about 150 tons of paint would be consumed.

Wm. H. Searles, Secy.

NEW PUBLICATIONS.

SOME OBSERVATIONS ON THE GROWTH OF ORGANISMS IN WATER PIPES.—By Geo. C. Whipple, Biologist and Director of Mount Prospect Laboratory, Brooklyn Water Department. Reprinted from "The Journal of The New England Water-Works Association," Vol. xii., No. 1. Paper; pp. 19; two illustrations. Address the author as above.

The conclusions presented in this paper were given in our issue of Sept. 16, 1897, in our report of the last annual convention of the New England Water-Works Association. Mr. Whipple has done much work relating to the tastes and odors of water supplies, especially as caused by the life processes of organisms found in such waters.

BIOLOGICAL STUDIES IN MASSACHUSETTS.—By G. C. Whipple. Paper, 6 × 10 ins.; pp. 6; two plates. Reprinted from the American Naturalist for June 1, 1897. Address the author, Mt. Prospect Laboratory of the Brooklyn Water-Works, Brooklyn, N. Y.

This is a brief review, with some description of methods employed, of the biological work done in connection with the water supplies of Massachusetts, by the State Board of Health, the Boston, Brooklyn and Lynn Water-Works. Mr. Whipple has published a number of other papers on various phases of the microscopical examination of drinking water, some of which were especially designed for water-works engineers and superintendents.

ROADMASTERS' ASSOCIATION OF AMERICA.—Report of the Proceedings of the 15th Annual Convention, Held at Old Point Comfort, Va., Sept. 14, 15, 16, 1897. Secretary, J. B. Dickson, Sterling, Ill. Paper; 8vo.; pp. 144.

This is a well-arranged and well-printed report of the proceedings, including the full discussions on the papers and committee reports presented. The reports, which are given in full, are as follows: "The Benefits and Results Obtained from the Use of Tie-Plates," "Rail Joints," "The Economy of Different Methods of Renewing Ties," "Latest Improvements in Switches and Frogs." There are also papers on "The Chemical Treatment of Cross-Ties," by Mr. J. M. Meade, and "The Best Methods of Directing and Supervising the Work of Section Foremen," by Mr. H. W. Church, together with an address on "The Roadmaster and His Work," by Mr. E. E. Russell Tratman, Associate Editor of "Engineering News." The proceedings of the convention were reported in our issue of Sept. 23, 1897.

U. S. COAST AND GEODETIC SURVEY.—Report of the Superintendent of.—Showing the Progress of the Work During the Fiscal Year Ending June, 1896. Washington, D. C.: Government Printing Office. Cloth; 11¼ × 9 ins.; pp. 722; 17 maps, and diagrams.

In the two parts into which this report is divided Part I. presents abstracts of progress in field and office work, estimates for future work and a statement of expenditures during the year. The work performed is widely scattered, from Alaska to Florida, and folding maps show the progress made in each case, including basic maps for the United States for triangulation and exact leveling. Part II., covering the appendices, relates to the methods employed and to special results, or special work accomplished. Among these we note the following: A new solution of the geodetic problem, by C. H. Kummel, and field method of reducing portable transit time observations, by G. R. Putnam. In this part are included a treatise on the nature, computation and uses of logarithms, by Superintendent W. W. Duffield, and complete logarithmic tables of numbers and circular functions to ten places of decimals.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3 1-2 x 6 ins.; 6 x 9 ins., and 9 x 12 ins.)

SHAFTINGS, PULLEYS AND HANGERS.—Robert Poole, Son & Co., Baltimore, Md. Pamph.; 6½ × 4½ ins.; pp. 51.

This is a price list of various sizes of shafting and equipment for shafts.

TURBINE WHEELS.—Robert Poole, Son & Co., Baltimore, Md. Pamph.; 7¾ × 4¾ ins.; pp. 72.

This is an illustrated list of the well-known "Leffel" wheel, with useful tables in relation to water wheels and flow of water.

LOCKED WIRE FENCE.—The Jones National Fence Co., Columbus, O. Paper; 9¼ × 6 ins.; pp. 20; illustrated.

The claims made for the Jones locked wire fence are: simplicity and rapidity of construction, great strength, cheapness and durability. The catalogue illustrates the several types, connections and tools used.

STEEL, TIMBER AND MASONRY CONSTRUCTION.—R. H. Hood, Engineer and Contractor, 220 Broadway, New York. Flexible leather; 9 × 6 ins.

This is, in fact, a well-made year-book or diary for 1898, issued to the clients of Mr. Hood, who is a contractor for buildings, bridges, piers, warehouses, power plants and all kinds of heavy construction.

GEARING.—Robert Poole, Son & Co., Baltimore, Md. Cloth; 7¾ × 5¼ ins.; pp. 235.

This catalogue contains an extensive list of spur, bevel and worm gears. This firm is one of the oldest in the business, and its facilities for making machine-molded or cut gears now range from the smallest sizes up to 50 ft. in diameter.

DRAWING MATERIALS AND SURVEYING INSTRUMENTS.—Keuffel & Esser Co., 127 Fulton St., New York. Paper; 8¾ × 5½ ins.; pp. 424; illustrated; 50 cts.

This 1897 priced catalogue contains many changes made in consequence of the new tariff law, and included with it is a trade price list. As to the 28th edition of this catalogue little more need be said than that it contains about all that the engineer, surveyor or draftsman can require in his practice.

METALLIC SKYLIGHTS.—Valle & Young, Maryland Galvanized Iron Cornice Works, 216 N. Calvert St., Baltimore, Md. Paper; 9 × 6 ins.; pp. 29; illustrated.

These metallic skylights admit glazing without putty; they are fire and waterproof and provide for expansion and contraction. They are especially designed for large, continuous lights in railway depots and shops, factories, mills, foundries, etc. The catalogue describes the several types in detail and illustrates their use in large structures.

ENGINEERING AND SURVEYING INSTRUMENTS.—F. C. Knight & Co., 400 and 402 Locust St., Philadelphia, Pa. Paper; 10½ × 6¾ ins.; pp. 64; illustrated.

This is a well-illustrated price list of the instruments and materials made and for sale by this firm. The railway wye level described has the telescope resting in the wyes on agate bearings, with the upper spring bearings made of ivory. The purpose is to avoid the usual wear, resulting from contact of metal with metal, and the consequent readjustment. A great variety of Draper transits is illustrated.

PUMPS AND HAND FIRE ENGINES.—The Goulds Manufacturing Co., Seneca Falls, N. Y., and 16 Murray St., New York City. Paper; 8 × 7 ins.; pp. 8; illustrated.

This is a priced descriptive circular of a number of forms of new pumps made by the above company, including a two-cylinder suction or contractors' pump and an odorless excavating pump for emptying cesspools. A number of hand fire pumps are also described. A table is given showing the equivalents of American and English money from $1 to $100, assuming that $4.80 per pound sterling is realized on remittances from England to this country.

PUMPS, COMPRESSORS AND BLOWING ENGINES.—Fraser & Chalmers, Chicago, Ill. Paper; 6 × 9 ins.; pp. 205.

This is a combined catalogue and handbook of useful information intended largely for users of this firm's machinery in remote parts of the country or in foreign countries. Several pages are devoted to advice in regard to business correspondence and lists of code words. Then follow illustrations and descriptions of irrigation, mining and water-works pumping plants fitted with the Riedler pumps. Most of these are operated by horizontal and vertical steam engines, but drawings are given of Riedler pumps driven by electric motors and by water wheels. The pages of useful information include tables of water-wheel power, weight and safe pressures of pipe, loss of head by friction in pipes, weir and tank measurements, etc., and particulars as to placer mining and the laying of pipe lines. There is a full index, and the illustrations include numerous half-tone engravings of large pumping plants.

HIGH-PRESSURE HYDRAULIC FITTINGS AND FLANGES; and Information for Use in Designing Hydraulic Plants.—By John Platt, M. Am. Soc. C. E., Assoc. M. Inst. C. E. Tight Joint Co., 100 Bank St., New York City. Paper; 5 × 6¾ ins.; pp. 56; tables and illustrations.

This company makes a joint by using "a [illegible] dollar ¾-in. wide by 3-16-in. deep, cast in the fitting [illegible] or four threads from the end," the lead being pressed firmly into the screw threads and around the pipe when [illegible] pipe is screwed up. The section contributed by Mr. [illegible] includes a number of useful hydraulic and other tables, and in addition nearly twenty pages on "Hydraulic Power Transmission."

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng News.
Feb. 17.	Widening street, St. Paul, Minn.		Feb. 10
Feb. 17.	Electric light plant, Allegheny, Pa.		Feb. 3
	Advertised, Eng. News, Feb. 3 and 10.		
Feb. 17.	Reservoir, Braddock, Pa.		Feb. 3
	Advertised, Eng. News, Feb. 3 and 10.		
Feb. 17.	Stone curbing, Bloomington, Ill.		Feb. 17
Feb. 18.	Bridge over Erie Canal, Buffalo, N. Y.		Feb 10
Feb. 18.	Sidewalks, Des Moines, Ia.		Feb. 10
Feb. 18.	Post office building, South Omaha, Neb.		Jan. 27
	Advertised, Eng. News, Jan. 27 and Feb. 3.		
Feb. 18.	Canal bonds ($3,230,000), Albany, N. Y.		Feb. 3
Feb. 19.	Bonds, Charleston, S. C.		Feb. 3
Feb. 19.	Lodge building, Gibsonburg, O.		Feb. 3
Feb. 19.	Elevator, Pueblo, Colo.		Feb. 10
Feb. 19.	Bridge ($15,000), Lecompton, Kan.		Feb. 10
Feb. 19.	Heating, etc., Binghamton, N. Y.		Feb. 10
Feb. 19.	Sewers, Rochester, N. Y.		Feb. 17
Feb. 19.	Brick paving, Belleville, Ill.		Feb. 17
Feb. 20.	Canal, bridges, etc., Helena, Mont.		Feb. 3
Feb. 21.	Vault, etc., Halletsville, Tex.		Dec. 23
Feb. 21.	Extending pier, Margaree, N. S.		Jan. 13
Feb. 21.	Steel tow-boat, Memphis, Tenn.		Jan. 27
Feb. 21.	Public building, Barnesville, O.		Feb. 3
Feb. 21.	School building, Ottumwa, Ia.		Feb. 10
Feb. 21.	Wharf, North Bay, Ontario		Feb. 17
Feb. 21.	Removing street dirt, Albany, N. Y.		Feb. 17
Feb. 21.	Sidewalks, paving, etc., Atlanta, Ga.		Feb. 17
Feb. 21.	Asphalt, paving, etc., New Orleans, La.		Feb. 17
Feb. 21.	Lodge hall, Savannah, Ga.		Feb. 17
Feb. 22.	Garbage collection (5 yrs.), Toledo, O.		Feb. 17
Feb. 22.	Water-works, Normal, Ill.		Feb. 17
	Advertised, Eng. News, Feb. 17 and 24.		
Feb. 23.	Brick paving, Elkhart, Ind.		Feb. 10
Feb. 23.	Church building, La Crosse, Wis.		Feb. 10
Feb. 23.	Electric plant, Ortonville, Minn.		Feb. 10
Feb. 23.	Water-works, etc., Ortonville, Minn.		Feb. 10
Feb. 23.	Laying water pipe, etc., Westfield, Mass.		Jan. 27
	Advertised, Engineering News, Jan. 27.		
Feb. 23.	Water pump (3,000,000 galls.), Erie, Pa.		Jan. 27
	Advertised, Engineering News, Jan. 27.		
Feb. 23.	Water supply, Jersey City, N. J.		Jan. 13
Feb. 23.	Paving, Buffalo, N. Y.		Feb. 17
Feb. 23.	Sewers, Rochester, N. Y.		Feb. 17
Feb. 23.	Steel bridge (100 ft.), Tara, Ont.		Feb. 17
Feb. 23.	School bonds ($33,000), Columbus, O.		Feb. 17
Feb. 24.	Highway (8½ miles), Vernon, Ind.		Feb. 17
Feb. 24.	Pipe covering, etc., Chicago, Ill.		Feb. 17
Feb. 24.	Water pipe, Fort Harrison, Mont.		Jan. 27
Feb. 24.	Sewers, etc., Cleveland, O.		Feb. 3
Feb. 24.	Elevators, Omaha, Neb.		Feb. 10
	Advertised, Eng. News, Feb. 10 and 17.		
Feb 24.	School building, Boston, Mass.		Feb. 10
Feb. 24.	Heating, etc., Marion, O.		Feb. 10
Feb. 25.	Arc lights (175), West Superior, Wis.		Feb. 17
Feb. 25.	Street sweeping, etc., St. Louis, Mo.		Feb. 17
Feb. 25.	Bridge, Saginaw, Mich		Feb. 17
Feb. 25.	Granite walks, St. Louis, Mo.		Feb. 17
Feb. 26.	Water filters, Elgin, Ill.		Feb. 17
Feb. 26.	Storage batteries (1,200 cells), Chicago, Ill.		Feb. 17
Feb. 26.	School building, Cleveland, O.		Feb. 10
Feb. 26.	Purchase l't and water plant, Brunswick, Ga.		Jan. 20
Feb. 28.	Brick or granite block paving, Toledo, O.		Feb. 10
Feb. 28.	Steel stand-pipe, Maquoketa, Ia.		Feb. 10
Feb. 28.	Main sewer, La Junta, Colo.		Feb. 10
	Advertised, Engineering News, Feb. 10.		
Feb. 28.	Sewers, Tampa, Fla.		Feb. 3
	Advertised, Eng. News, Feb. 3 to 24.		
Feb. 28.	Steel towers, etc., New York.		Feb. 3
	Advertised, Eng. News, Feb. 3 to 24.		
Feb. 28.	Dredging, Keweenaw Pt., Mich.		Feb. 3
	Advertised, Eng. News, Feb. 3 to 24.		
Feb. 28.	School buildings, Anadarko, Okla.		Feb. 3
Feb. 28.	Harbor work, Pernambuco, Brazil.		Jan. 13
Feb. 28.	Sewer bonds, Coshocton, O.		Feb. 17
Feb. 28.	Sewer, grading, etc., Wapakoneta, O.		Feb. 17
Feb. 28.	Bonds, Omaha, Neb.		Feb. 17
Mar. 1.	Railway ties, Montreal, Que.		Feb. 17
Mar. 1.	Court house, Clarkesville, Ga.		Feb. 17
Mar. 1.	County bridges, Tekamah, Neb.		Feb. 17
Mar. 1.	Railway, Henrietta, Tex.		Jan. 13
Mar. 1.	Church building, Melrose, Minn.		Jan. 27
Mar. 1.	Naval supplies, Mare Island, Cal.		Feb. 3
Mar. 1.	Railway (25 miles), So. McAlester Ind. Ter.		Feb. 10
Mar. 1.	Pipe sewers (2,800 ft.), Elizabeth, N. J.		Feb. 10
Mar. 1.	Building work, Roseau, Minn.		Feb. 10
Mar. 2.	Market house, Cincinnati, O.		Feb. 10
Mar. 2.	Gravel roads, Atlantic county, N. J.		Feb. 3
	Advertised, Eng. News, Feb. 3 to 24.		
Mar. 2.	Decorative painting, Detroit, Mich.		Feb. 17
Mar. 2.	Wire fence (60 miles), Pine Ridge, S. Dak.		Feb. 17
Mar. 2.	Sewers, Spokane, Wash.		Feb. 17
Mar. 3.	School building, Alva, Okla.		Feb. 17
Mar. 3.	Electric lighting, New London, Conn.		Feb. 10
	Advertised, Eng. News, Feb. 10 to 24.		
Mar. 3.	Stop cocks, valves, etc., Cleveland, O.		Feb. 10
Mar. 3.	Water bonds, etc., East Cleveland, O.		Feb. 10
Mar. 4.	Steel plating, St. Louis, Mo.		Feb. 10
	Advertised, Eng. News, Feb. 10 to 24.		
Mar. 4.	Bridge lumber, Richmond, Ind.		Feb. 17
Mar. 4.	County bridges, Nebraska City, Neb.		Feb. 17
Mar. 4.	Dam, Wilkes Barre, Pa.		Feb. 17
Mar. 4.	School building, Hamilton, O.		Feb. 10
Mar. 5.	Iron flagstaffs, St. Louis, Mo.		Feb. 10
Mar. 5.	Pumping engine, foundations, Chicago		Feb. 10
Mar. 5.	Improving road, Cincinnati, O.		Feb. 10
Mar. 7.	Intercepting sewers, Chicago, Ill.		Feb. 10
	Advertised, Eng. News, Feb. 10 and 17.		
Mar. 7.	School bonds ($90,000), Toledo, O.		Jan. 20
Mar. 7.	Refitting vault, Waukegan, Ill.		Jan. 20

Mar. 7. Water-works, Oregon, Mo. ..... Feb. 17
Advertised, Eng. News, Feb. 17 and 24.
Mar. 8. Jail building, **Madera, Cal.** ..... **Jan. 20**
Mar. 8. Jail building, Grand Haven, Mich. ..... Feb. 10
Mar. 9. Tower clock and bell, Omaha, Neb. ..... Feb. 17
Advertised, Eng. News, Feb. 17 and 24.
Mar. 10. Court house, Geneseo, N. Y. ..... Feb. 17
Mar. 10. Dredging, **Oakland Harbor, Cal.** ..... **Feb. 3**
Advertised, **Eng. News, Feb. 3 to 24.**
Mar. 14. Grading, etc., Muncie, Ind. ..... Feb. 17
Mar. 15. School building, Spokane, Wash. ..... Feb. 17
Mar. 15. Steel **submerged water pipe, Portland, Ore. Feb. 3**
Advertised, **Eng. News, Feb. 3 to Mar. 3.**
Mar. 15. Electric light plant, Sophia, Bulgaria ..... Feb. 10
Mar. 18. River improvements, Calcasieu River, La. .. Feb. 17
Mar. 20. Water refunding bonds, Fayetteville, Ark. . Feb. 17
Advertised, Eng. News, Feb. 17 and 24.
Mar. 21. Court house, Nashville, Ga. ..... Feb. 17
Mar. 25. School building, Mondamin, Ia. ..... Feb. 17
Mar. 28. Water-works, Holly Springs, Miss. ..... Feb. 17
Advertised, Eng. News, Feb. 17 and 24.
Mar. 28. Electric light plant, Holly Springs, Miss. .. Feb. 17
Advertised, Eng. News, Feb. 17 and 24.
Apr. 1. Water pipe (3,116 tons), St. John, N. B. .... Feb. 17
Apr. 2. School **building, Brandon, Minn.** ..... **Feb. 3**
Apr. 4. Wharf, franchise, Summerland, Cal. ..... Jan. 27
Apr. 5. County bridges, Dakotah, Ia. ..... Feb. 17
Apr. 6. River work, etc., Chicago, Ill. ..... Feb. 17
Advertised, Eng. News, Feb. 17 to Mar. 10.
Apr. 6. Channel work, etc., Chicago, Ill. ..... Feb. 10
Apr. 7. Bridge (150-ft. span), Kalama, Wash. ..... Feb. 17
Apr. 15. Lock and approaches, New Orleans, La. .... Feb. 17
Advertised, Eng. News, Feb. 17 to Mar. 10.
Apr. 30. Town hall, Singapore, S. S. ..... Jan. 13
May 1. Plans **for sewage disposal, Belper, Eng.** .... **Dec. 16**
June 1. Electric lighting (10 yrs.), New Orleans, La. Feb. 17
July 1. Water power, Madras India ..... Oct. 28
No date. Water supply, St. Joseph, Mo. ..... Feb. 17
Advertised, Eng. News, Feb. 17 to Mar. 3.
" .Grading, Walla Walla, Wash. ..... Feb. 17
" .Electric & gas lighting, Thomasville, Ga. .. Feb. 17

RAILWAYS.

ARKANSAS CENTRAL.—Reports state that this company has filed a certificate of extension of its line from Paris in an easterly direction to Little Rock, Ark., a distance of about 50 miles; thence in a southerly direction to Hot Springs, Ark. Further information may be found in our issue of Feb. 3. N. B. Kindall, Gen. Mgr., Fort Smith, Ark.

AUGUSTA SOUTHWESTERN.—This company was incorporated in Georgia, Feb. 8, with a capital stock of $1,000,000. It is proposed to build a railway 100 miles in length from a point on the Augusta Southern R. R., a branch of the South Carolina & Georgia R. R., near Tennille, to Cordele, Ga. James M. Jackson, of the South Carolina & Georgia R. R., Augusta, Ga., is said to be the chief promotor of the project.

CHICAGO, FORT MADISON & DES MOINES.—It is reported that this company will extend its line in the spring from Ottumwa to Albia, Ia. From Albia it would connect with Des Moines, over the tracks of the Wabash Ry. E. F. Potter, Vice-Pres. and Gen. Mgr., Fort Madison, Ia.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—Reports state that the Crouch Construction Co., First National Bank Bldg., Chicago, Ill., has been awarded the contract for building an extension to this line at Anderson and for opening gravel pits in this vicinity. G. W. Kittridge, Ch. Engr., Cincinnati, O.

COLORADO VALLEY.—Irving H. Wheatcroft, Vice-Pres. and Gen. Mgr., Sweetwater, Tex., informs us that part of this railway has been completed and is in operation between Sweetwater and Adaville. Track is now being laid between Adaville and Melbourne, Tex. Contracts have still to be awarded for the completion of the first division of the line to San Angelo, a distance of 79 miles. The company desires to purchase 56 to 60-lb. rails, four iron bridges and general equipment. Geo. S. Moore, Ch. Engr., Sweetwater, Tex.

CROW'S NEST PASS.—Reports state that the first 105 miles of this proposed railway have been graded. It is said that 5,000 men are being employed and that three tunnels are in course of construction. M. J. Harvey, Mgr. Construction, McLeod, Alberta, N. W. T.

DAYTON & FAUNSDALE.—Abercrombie & Williams are stated to have been awarded the contract for constructing an extension of this proposed railway between Demopolis and Linden, Ala., a distance of 20 miles. Pres., G. L. Siddons, Dayton, Ala.

DEMOPOLIS & PENSACOLA.—This company has been incorporated with a capital stock of $150,000, according to reports, to build a railway between Demopolis, Ala., and Pensacola, Fla. John C. Webb and W. H. Welch are among those interested.

EL RENO & SOUTHWESTERN.—This company was incorporated in Oklahoma, Feb. 3, with a capital stock of $1,000,000. It is proposed to construct and operate a railway and telegraph line from or near El Reno southwesterly through Canadian county, thence through the Caddo and Wichita Indian reservation, Washita county, the Kiowa, Comanche and Apache Indian reservations and Greer county, to a point connecting with the Denver & Fort Worth Ry., near Vernon, Tex., a distance of about 175 miles. The incorporators are: N. B. Wass, T. F. Hensley, John S. Kerfoot, Jr.; J. F. McGrath, A. F. Masterman, A. F. Newell and J. L. Morrison, all of El Reno, Okla.

GOLDEN CIRCLE.—S. T. Smith, Pres., Denver, Colo., informs us that Dumphy & Nelson, of Victor, Colo., have already finished constructing about two-thirds of this proposed steam railway from Victor to Altman, via Goldfield, Colo., a distance of 5 miles. R. D. Stewart, Ch. Engr., Florence, Colo.

GUADALUPE VALLEY.—J. H. Barrett is said to have been awarded a contract to construct a portion of this proposed railway between Victoria, Tex., and Alligator Head, a distance of 51 miles. John P. Nelson, Gen. Mgr., San Antonio, Tex.

GULF, ARKANSAS & NORTHWESTERN.— This company was incorporated in Arkansas, Feb. 3, with a capital stock of $450,000, to construct a line from Bentonville northwesterly to the State line, a distance of 29 miles. The directors are: F. C. Parker, C. N. Hale, Chicago, Ill.; C. De Witt Hagerman, Wymere, Neb.; J. M. Bohart, Bentonville, Ark.; Frank Fanning, St. Joseph, Mo.; L. H. McGill, J. W. Langford, C. M. Robinson and A. E. Buchanan, Bentonville, Ark.

LAUREL FORK & SAND HILL.—Stiles Bros., Parkersburg, W. Va., inform us that they will operate this railway for a few months only, after which they will sell the material, as there is not enough business to permit reconstruction.

MAINE.—Local reports state that the Hallowell Granite Co., Hallowell, Me., has definitely decided to build a railway to the Granite Hill quarries next spring. Improved facilities are needed in order to supply the necessary stone for the new Hall of Records to be built in New York, N. Y.

MUSCOGEE COAL RY.—This company was incorporated in Oklahoma, Feb. 5, with a capital stock of $1,250,000, to build a railway from Red Fork, Ind. Ter., to Guthrie, Okla. It is reported that the charter is for the line being built between Red Fork and Guthrie by Col. E. H. Brown, Tom Conners, of Joplin, Mo., and others of the Consolidated Coal Co. The incorporators are: C. G. Horner, J. W. McNeil, W. S. Gray, U. C. Guss and Frank H. Greer.

NORTHERN OHIO.—George Hugill has been awarded a contract by this company for the construction of a railway to connect the Northern Ohio Ry. with the Cleveland, Akron & Columbus Ry. D. P. Beaty, Road Master, Delphos, O.

ONTARIO.—The Ontario government is said to have granted the following subsidies: To the Ontario & Rainy Ry., for an extension from Fort Frances, a distance not to exceed 40 miles, $120,000; to the Pembroke Southern Ry., from a point in the northeast part of the township of Alice to the northeastern boundary of the said township, $10,000; to the Irondale, Bancroft & Ottawa Ry., from a point 45 miles from Irondale, and thence due east for a distance of 10 miles, $30,000; to the Bay of Quinte Ry., for such extension of its projected and authorized railway north of Tweed, as will not exceed 30 miles in all, $90,000; to the James Bay Ry., to aid in the construction of 90 miles of the said railway from Parry Sound to a point at or near Sudbury, for a distance not exceeding 40 miles, $120,000, and the unearned subsidy of $3,000 a mile for a distance not exceeding 50 miles, which was granted to the Nipissing & James' Bay Ry. in 1889, $150,000.

PECOS VALLEY & NORTHEASTERN.—Press reports state that J. J. Hagerman, of Colorado Springs, Colo., and E. O. Faulkner, Receiver of the Pecos Valley Ry., have succeeded in securing $2,500,000 for the extension of this line from Roswell, N. Mex., to Washburn, Tex., a distance of 215 miles, where a connection will be made with the Santa Fe system and Union Pacific, Denver & Gulf.

PETERSBURG, RICHMOND & NORTHERN.—A bill has been introduced in the Virginia legislature to incorporate this company, with a capital stock of $250,000, for the purpose of building a railway parallel to the Richmond, Fredericksburg & Potomac R. R., and connecting Petersburg and Washington, D. C., via Manchester, Richmond, Henrico, Hanover and King George. A similar charter was refused four years ago. T. M. Destrick and Merriweather Jones, of Richmond, Va.; J. G. B. Woolworth and others, of New York, are said to be interested.

PITTSBURG, CONNELLSVILLE & BALTIMORE.—An election will be held at Moundsville, W. Va., March 5, according to reports, to vote on the proposition of issuing $100,000 in bonds to aid the new line to be built from the coal fields near Fairview, Pa., to Benwood, W. Va., via Moundsville, a distance of 26 miles. Pres., R. E. Murdock, Ingram, Pa.; Ch. Engr., S. Taylor, Pittsburg, Pa.

RICHMOND, PETERSBURG & CAROLINA.—Gen. Jas. S. Negley, Vice-Pres. and Gen. Mgr., 136 Liberty St., New York, informs us that contracts have been and are now being let for all the material required for the construction of the entire length of this company's line, including bridges, appurtenances and motive power. The roadway through North Carolina has been graded, and is in readiness for the track, which will be laid next month. Twenty miles south of Petersburg, Va., will be in readiness for the track by the first of April, and the rails will be laid immediately thereafter. The graduation of the balance of the line will be let about March 1. The entire work will be pushed to completion rapidly.

ST. LOUIS & MEMPHIS.—This company has been incorporated in Missouri, with a capital stock of $130,000, to build a railway from New Madrid, Mo., 13 miles long. S. S. Barnes is said to be interested.

ST. LOUIS TERMINAL.—E. P. Bryan, Pres., St. Louis, Mo., informs us that the surveys have been made, most of the right of way obtained and the capital for construction secured for the proposed belt line in the northwestern portion of St. Louis, to be six miles in length. Construction will commence after the granting of the franchises by the city. John W. Taylor, Ch. Engr., St. Louis.

SULTAN VALLEY.—Reports state that this company has been organized in Seattle, Wash., with a capital stock of $1,000,000, to build a railway from tidewater, at Port Gardner Bay, to the head of the basin of Sultan River. The incorporators are: Nathan B. Jones, Fred. Hinckley and others.

WASHINGTON, ANNAPOLIS & CHESAPEAKE.—This company was incorporated in Maryland, Feb. 10, to build a railway whose termini will be at Washington, Annapolis and a point on Chesapeake Bay, north of Plum Point, Calvert county. The capital stock is said to be $10,000, with authority to increase to $1,500,000. The incorporators are: Henry H. Brogden, James B. Belt, Augustus Burgdorf, Charles M. Wells, George S. Chase, George R. Brennan and Edward H. Way.

WASHINGTON TERMINAL.—A bill has been introduced in the Virginia legislature to incorporate this company with a capital stock of $2,500,000. The intention of the company is to improve the terminal facilities of the Seaboard Air Line, the Southern Ry., the Chesapeake & Ohio Ry. and the Atlantic Coast Line, in Washington, D. C., to do away with grade crossings and to either enlarge or rebuild the 6th and B St. station, besides constructing large yards. Those named as incorporators are: Frank Thomson, Samuel Spencer, M. E. Ingalls, H. Walters, John P. Green, Chas. E. Pugh and Samuel Rea, all officers in the above-named companies.

WHITE RIVER, LONOKE & WESTERN.—This company was incorporated in Arkansas, Feb. 3, with a capital stock of $350,000, with $55,000 paid in, to build a railway from Jacksonville to White River, via Lonoke, Ark., a distance of 50 miles. The incorporators are: J. W. Wooley, J. R. Roberts, E. B. Wooley, A. P. Brewer, A. Bushnell, Dan Daniel, Joe P. Eagle, J. W. Blackwood.

WISCONSIN & MICHIGAN.—Samuel M. Fisher, Pres., Old Colony Bldg., Chicago, Ill., informs us that while this company is considering the extension of its line from Marinette to Iron Mountain, Mich., nothing definite has yet been decided upon.

STREET AND ELECTRIC RAILWAYS.

SANFORD, ME.—It is reported that the directors of the Sanford & Cape Porpoise Electric Ry. Co. have succeeded in placing their bonds and that no obstacle now remains in the way of the building of the line.

AMHERST, MASS.—W. D. Cowls, Pres. Amherst & Sunderland St. R. R. Co., North Amherst, Mass., informs us that nothing is likely to be done at present with the franchise recently granted to the company for an extension from Mill Valley to the Hadley line.

GRAFTON, MASS.—A hearing before the selectmen will be held Feb. 25 for the granting of a franchise asked by the Worcester Consolidated St. Ry. Co. to build through this town.

WARE, MASS.—Reports state that G. H. Gilbert, F. D. Gilmore and others, of this town, have petitioned the state legislature for a charter to build an electric railway.

SOUTHINGTON, CONN.—The burgesses of this borough have granted a franchise to the Meriden, Southington & Compounce Tramway Co. to extend its line through this place. At the same meeting a request by the Southington & Plantsville Co. for a similar franchise was rejected.

WESTPORT, CONN.—A decision was handed down by Judge Elmer, Feb. 8, which declared that the Bridgeport Traction Co. may extend its line to this town. Pres., A. Radel, Bridgeport.

WINDSOR, CONN.—It is reported that J. W. Starr, Mgr. Springfield & Southwestern R. R. Co., has purchased the Windsor & Suffield Tramway Co.'s charter and that it is expected to complete the construction of the line this summer.

CATSKILL, N. Y.—Reports state that the Catskill Electric Ry. Co. will soon award the contract for the materials and also for the construction of this line. Supt., D. W. Sharpe.

FRANKFORT, N. Y.—Beckwith & Quackenbush have been awarded a franchise to build an electric railway through this village from Litchfield St. to the west village line.

NEW ROCHELLE, N. Y.—At a meeting of the village trustees, Feb. 7, additional applications for trolley franchises were received from the Westchester Electric Ry. Co. and the New York, Westchester & Connecticut Traction Co. This makes four companies which have applied for franchises, and the hearing was postponed until Feb. 28.

PELHAM MANOR, N. Y.—The manor trustees have extended the trolley franchise granted to the Union Ry. Co. March 11, 1896. The company gives a bond for $25,000 for the completion of the line within six months. As requests for franchises have been received from other companies, a public hearing will be given on Feb. 25.

PORT JERVIS, N. Y.—The town highway commissioners, Feb. 10, granted a franchise to the Port Jervis Electric St. Ry. Co. for the extension of its tracks from the power house to the south side of the River Road. Manager Fields may be addressed.

BRIDGETON, N. J.—The council granted a franchise to the Bridgeton & Millville Traction Co., Feb. 8, for an extension of its trolley line down South Ave. to Fairton, a distance of 4 miles. Secy., Walter H. Bacon, Bridgeton.

EASTON, PA.—It is reported that Geo. S. Good & Co., Lock Haven, Pa., will soon commence to construct the proposed line of the Northampton Electric Ry. Co. between Easton and Bethlehem, Pa. Pres., James Kerr, Clearfield, Pa.

McKEESPORT, PA.—Reports state that Cochran & Connell, of Water St., Pittsburg, Pa., have been awarded the contract for constructing 10 miles of electric railway for the Versailles Traction Co., of McKeesport. About 2½ miles of the proposed line have been built to a point near Boston, Pa., and it is now intended to extend the same to West Newton. The Versailles Traction Co. at present gets its power from the McKeesport Electric Light Co., but it is the intention of the former company to build its own power house, probably at Boston, to operate the new system, which will be about 12 miles long when completed.

WASHINGTON, D. C.—A bill is before Congress to incorporate the Washington & University Ry. Co., which proposes to build an electric railway from Connecticut Ave., extended, past the American University.

NEWPORT NEWS, VA.—Reports state that the Chesapeake & Hampton Roads R. R. Co. has secured a charter to construct an electric railway. R. M. Bickford, Newport News; A. M. Watson, Portsmouth, Va.; and Geo. G. Booke, Fortress Monroe, Va., are said to be interested.

CHARLOTTE, N. C.—It is reported that the board of aldermen has accepted the proposition of the Charlotte Electric Ry., Light & Power Co. to build additional street car lines in the First and Fourth Wards. Pres., E. D. Latta.

SALUDA, S. C.—S. H. Hudgins informs us that a Mr. Sterns has proposed to construct an electric railway from Saluda to Skyuka, on Tryon Mountain, 7 miles distant, but that no definite action has yet been taken.

NATCHEZ, MISS.—L. M. Dalgarn, Cy. Engr., writes us that bids will soon be asked for the purchase of a franchise including an electric light plant and an electric car line to be constructed in this city.

CHATTANOOGA, TENN.—It is reported that the Chattanooga Electric Ry. Co. contemplates the erection of a transfer station on Broad St., and the extension of its lines throughout the city. Pres., J. A. Warner, Richardson Block.

LUDLOW, KY.—Monte L. Green, Crescent Springs, Ky., informs us that the surveys have been made and the right of way is being obtained for the proposed Crescent Springs & Erlanger Electric Ry. from Ludlow to Florence, via Bromley, Greens Station, Crescent Springs, Kenton Heights and Erlanger, a distance of 7 miles. It has not yet been decided when construction will be commenced. E. O. Young, Ch. Engr., Covington, Ky.

DAYTON, O.—The council has been petitioned by the Dayton & Western Traction Co. for the right to construct a double track on College St., and also one from the Dayton, Spring Valley & Wilmington Transit Co. for a franchise to build on certain streets in the southeastern part of the city.

GOSHEN, IND.—A franchise was granted to the Goshen, Elkhart & Eastern Electric Ry. Co., Feb. 8, to build through this town.

CHICAGO, ILL.—The Chicago City Ry. Transit Co. was incorporated, Feb. 9, with a capital stock of $1,000,000. It is proposed to build an elevated railway on Dearborn St., from South Water St. to 39th St., thus passing through the center of the business district now encircled by the Union loop. The directors are: Frank R. Greene, Secy. Chicago City Ry. Co.; John F. Johnson, Charles L. Compton, William J. Bertram, John F. Fitzpatrick, Henry Brown and J. Lyle Turner.

LAKE BLUFF, ILL.—The Bluff City Electric Ry. Co. has secured an extension of time to complete its line through this village.

LA GRANGE, ILL.—Geo. W. Waite, C. E., La Grange, informs us that the La Grange, Warrenville & Fox River Electric R. R. Co., incorporated Jan. 28, has not yet been fully organized. The company at present is endeavoring to secure the necessary capital. The proposed line is from La Grange Park to Batavia, via Fullersburg and Warrenville, with a branch to Naperville and Wheaton, a distance of 50 miles. Further information may be found in our issue of Feb. 3.

KANSAS CITY, MO.—Contracts for building an extension to the Metropolitan St. Ry. were awarded, Feb. 7, to Wilson & Elmond, and for constructing the steel viaduct over the Missouri & Pacific Ry., to Farnsworth & Blodgett, both of this city.

PASADENA, CAL.—Col. J. M. Thompson has applied to the county supervisors for a franchise to build an electric line between Pasadena and Los Angeles. The road will be about 7 miles long, and is estimated to cost $300,000.

SAN DIEGO, CAL.—The Chamber of Commerce of this city is offering for sale a franchise granted to U. S. Grant, Jr., and others for the construction and operation of a railway through and over the public avenues and highways in the business portion of this city. The ordinance provides that the line be built by Jan. 1, 1900, or the franchise shall be forfeited. Chn., M. Sherman

BINGHAM, UTAH.—It is reported that L. L. Nunn has applied to the county commissioners for a franchise to build an extension of the old West Side Rapid Transit line to Bingham.

MONTREAL, QUE.—Bids are asked by the Montreal St. Ry. Co., until March 1, according to reports, for about 20,000 mixed cedar and tamarac ties. It is said that this company contemplates the using of power from Chambly with which to operate its lines. J. Ross, Vice-Pres. and Gen. Mgr., Craig St. and Place D'Armes Hill.

HAMILTON, ONT.—Reports state that bids are asked until Feb. 18 for 19,400 cedar railway ties, 3,000 white oak ties, etc., for the Hamilton, Chedoke & Ancaster Electric Ry. Co.

TORONTO, ONT.—J. W. Moyes, Gen. Mgr. Metropolitan St. Ry. Co., is reported as saying that it is very probable that this company will extend its line to Newmarket next summer.

ELECTRIC LIGHT AND POWER.

WINOOSKI, VT.—Press reports state that the Vermont Electric Co. has contracted with the Westinghouse Electric Mfg. Co. for machinery to generate power from the Winooski River, in the northern part of the state. The Westinghouse company will supply two 2,400 generators, besides other machinery. The power will be distributed for about 100 miles in all directions.

BOSTON, MASS.—It is stated that the Boston Electric Light Co. has made a contract with the General Electric Co., New York, for the equipment of the generating station now in course of erection, to cost about $200,000. Up to the present the Boston Electric Light Co. has operated a number of stations throughout Boston. Two of these, however, have recently been abandoned to make way for the new railway stations now being built, and the company has, therefore, decided to consolidate all the small stations into one generating plant to be erected in South Boston.

NEW LONDON, CONN.—Bids are asked until March 3 by the U. S. Engineer, New London, for furnishing and setting in place at Great Gull Island, N. Y., an electric light and power plant, as stated in our advertising columns, to consist of a 28-HP. oil engine, a 250-volt dynamo, three switchboards, about 3,000 ft. of wire, etc.

NEWPORT, N. Y.—The village board is reported to have awarded a contract for lighting this place with electricity.

NEW YORK, N. Y.—Bids are asked until Feb. 19 for wiring the U. S. Appraiser's warehouse, New York, for electric lighting. O. L. Spaulding, Asst. Secy., Treasury Dept., Washington.

ROME, N. Y.—Dr. John F. FitzGerald, Supt. Rome State Custodial Asylum, writes us that the F. P. Little Electrical Construction & Supply Co., Buffalo, N. Y., submitted the lowest bid Feb. 15 for electric wiring at the asylum, at $750 for junction boxes and conduit work and at $1,725 for wiring, fixtures, etc. Johnson & Morton, Utica, N. Y., and the Utica Electrical Mfg. & Supply Co., Utica, submitted the only other bids.

WHITEHALL, N. Y.—E. L Ashley, Glens Falls, N. Y., has been awarded a five-year contract for lighting this village by electricity. Elmer J. West, Gen. Mgr. Kanes Falls Electric Co., 71 Glen St., Glens Falls, writes us that the contract will begin May 1. There will be 22 arc and 94 incandescent lights for the streets and public buildings. It is not known how many will be required for commercial lighting. All machinery has been ordered. The contracts have yet to be let for furnishing 20-in. poles, 30 miles of wire, insulators, brackets, etc.

HEIGHTSTOWN, N. J.—T. D. Nostrand, Secy. Heightstown Electric Light & Power Co., writes us that the proposed plant to be located at Heightstown will include 30 arc lights of 2,000 c. p. and 1,000 incandescent lights of 16 c. p. No contracts have been let for furnishing the machinery. Bids for the work will be received at once. Estimated cost, $15,000. Engr., Chas. P. Fitch, Beverly, N. J.

OCEAN CITY, N. J.—The council has granted the People's Electric Light Co. permission to light this place and to furnish water, according to reports.

ALLEGHENY, PA.—The Allegheny County Light Co., it is reported, will extend its system by establishing a number of sub-stations, where gas engines will be used for driving the generators.

LEHIGHTON, PA.—The council has purchased a site for the proposed plant. Councilmen W. C. McCormick, W. H. Mantz and Otto Dittmar may be addressed.

NORRISTOWN, PA.—The Falkenau Engineeering Co., Philadelphia, has been awarded the contract for furnishing the machinery and for constructing the plant at $41,000. The R. S. Newbold & Son Co., Norristown, has the contract for erecting the boilers and iron stacks. Daniel H. White has the contract for the brick work, and Harry Keeler the contract for the carpentry and painting. Des. Engr., W. A. Drysdale, Hale Bldg., Philadelphia.

OXFORD, PA.—The taxpayers will probably soon vote on the question of issuing $10,000 in bonds for a municipal electric light plant, the contract with the Oxford Electric Light and Power Co. expiring soon.

REYNOLDSVILLE, PA.—The Economical Electric Light, Heat & Power Co. has asked for permission to erect a plant. Smith M. McCreight may be addressed.

ROYERSFORD, PA.—This place voted Feb. 15 against issuing $20,000 in bonds for a municipal plant, according to reports.

WILLIAMSBURG, PA.—The committee has submitted a report against the issuing of bonds for a municipal plant. J. E. Wilkinson, Chn. Com.

WILLIAMSPORT, PA.—It is stated that this city elected five councilmen Feb. 15 who favor a municipal plant and water-works.

HAGERSTOWN, MD.—The council is considering an ordinance authorizing the city attorney to draft a bill to present to the legislature granting this city authority to issue $60,000 in bonds for a municipal plant. It will probably be about three years before work is begun. Councilman Elmer K. Fiery may be addressed.

WILLIAMSPORT, MD.—The question of issuing $20,000 in bonds for a municipal plant will be voted upon soon, according to reports.

ATLANTA, GA.—The council committee has appropriated $1,000 for the employment of an electrical engineer to report on a municipal plant. Chairman Thomson and Alderman Rice, of the committee, may be addressed.

COLUMBUS, GA.—Plans are being perfected by the Columbus Power Co. for its proposed plant, and work on the dam, buildings, etc., will probably be begun as soon as the weather permits. Capital stock, $100,000. Preparations were somewhat delayed by the death of John Hill, Ch. Engr. Up to a late date his successor had not been selected. Treas., G. Gunby Jordan, Columbus.

FITZGERALD, GA.—An election will be held March 8 to vote on the question of issuing $33,000 in bonds for a plant and water-works. C. C. Goodnow, Mayor.

THOMASVILLE, GA.—Bids are asked until the first meeting of the new council for furnishing seven arc, 20 incandescent or 25 gas lights, for one year. K. T. Maclean, Clk.

NEW ORLEANS, LA.—Bids are asked by the city attorney until June 1 for the purchase of a franchise for lighting the streets, squares, public buildings, etc., for a period of ten years, according to reports.

HATTIESBURG, MISS.—Dunbar & Son have been granted permission to erect a plant, according to reports.

HOLLY SPRINGS, MISS.—Bids are asked until March 28 for furnishing the material and for constructing a plant and water-works, as described in our advertising columns. Engr., W. G. Kirkpatrick, Jackson, Miss.; Mayor, Sam Finley.

NATCHEZ, MISS.—L. M. Dalgarn, Cy. Engr., writes us that the council will soon ask for bids for the purchase of an electric light franchise, to include an electric railway franchise.

BROWNSVILLE, TENN.—It is reported that the Brownsville Electric Light Co. has made arrangements to extend its plant to the resident portion of the town. John Clinton may be addressed.

ELIZABETHTON, TENN.—It is reported that subscriptions for 400 incandescent lights have been secured. A plant will probably be erected within 90 days.

MADISONVILLE, O.—T. C. Finch, Supt. Water-Works, writes us that this place will vote Feb. 26 on the question of issuing $2,500 in bonds for extending the light plant and water-works. J. H. Mitchell, Pres. Comrs.

WOOSTER, O.—Information and data are wanted for furnishing the machinery and for constructing a plant. Population (1890), 5,900. W. S. Peckinpaugh, Cy. Clk.

WORTHINGTON, IND.—The town trustees are reported to have awarded a contract to T. B. Sherman, of Chicago, Ill., for furnishing 25 arc lights at $48 a year and for furnishing water. The plants will be built at once.

FLINT, MICH.—The council is reported to have asked for bids for constructing a municipal plant.

TAWAS CITY, MICH.—M. Murphy, Mayor, writes us that the city needs an electric light plant.

CHICAGO, ILL.—City Electrician Ellicott has completed the organization of the new electrical department of the city government. Mr. Ellicott has asked the council to appropriate $500,000 to carry on the work of the new electrical department, extend municipal electric lighting and put in effect the various reforms planned. About $150,000 of this amount will be used to install a new plant in Hyde Park in connection with the city pumping station at 68th St.——The Armour Electric Light, Fuel & Power Co. has certified to a change of name to the Alaska Company, and also an enlargement of its objects.

CHICAGO, ILL.—Bids are asked until Feb. 26 for furnishing 1,200 cells of storage batteries. Edward B. Ellicott, Cy. Electrician.

GRIDLEY, ILL.—The question of constructing a plant and water-works is being considered, according to reports.

PORT BYRON, ILL.—The Port Byron Pearl Button & Improvement Co. has been incorporated with a capital stock of $5,000 to build a plant and water-works. N. E. Rodgers, A. A. Olin, W. B. Ladd and J. W. Simonson are interested.

SPRING GREEN, WIS.—G. F. Post writes us that the bids for constructing the plant received Feb. 1 were rejected. The following contracts were let, however. Boilers, Adolph Little Iron Co., Grand Rapids, Mich.; dynamos, Fort Wayne Electric Corporation, Fort Wayne, Ind. The contracts for furnishing the engines and other supplies are yet to be let.

MORGAN, MINN.—I. N. Tompkins, Cy. Clk., writes us that there is some talk of putting in a plant, but it is hardly possible that one will be put in this year.

OLIVIA, MINN.—Edward Wille, of Granite Falls, Minn., writes us that as soon as the necessary funds for the proposed plant can be secured work will be begun.

SAC CITY, IA.—This city voted Feb. 7 in favor of granting a 20-year franchise to a local company composed of Asa Platt, D. Carr Early and Judge S. M. Elwood.

HARTINGTON, NEB.—A contract has been awarded to E. C. Largess for constructing an electric light plant in this place to cost $3,000.

LEWISTOWN, MONT.—Geo. W. Cook, Pres. Citizens' Electric Light Co., Lewistown, informs us that the company is ready to receive estimates for the machinery for the proposed electric light plant. Capital stock, $10,000.

FORT SCOTT, KAN.—The council has voted to call an election to vote on the question of issuing $150,000 in bonds for a municipal plant and water-works. Councilmen Connor, James, Hart and Lockhard, and Mayor Hessner may be addressed.

ELGIN, TEX.—L. L. Pucket, Elgin, is reported as about to construct a plant.

STERLING, COLO.—The question of issuing $12,000 in bonds for constructing an electric light plant and water-works will be submitted to the voters at the April election.

NEW WHATCOM, WASH.—The Bellingham Bay Improvement Co. is reported to have arranged for large extensions of its electric light plant, which will be effected this month. The company now furnishes 13 arc lights to the city at $8.33⅓ each per month, and Night Superintendent Anderson has submitted a proposition to furnish to the city 30 arc lamps at $5.50 a month each and incandescents at 25 cents each.

MEDFORD, ORE.—Reports state that a franchise has been granted to A. Proudfoot to operate the city electric light plant and water-works.

SAN FRANCISCO, CAL.—The association of improvement clubs has decided to ask the board of supervisors in order to secure better lights to adopt certain specifications regarding poles, wires, conductors, lamps, carbon electrodes and other apparatus necessary for electric lighting. It is proposed that incandescent lamps of 32 c. p. be placed on posts and distributed at the discretion of the superintendent of public streets. About 20,000 arc lights of 2,000 c. p. each and 6,000 incandescent lights of 32 c. p. each will be necessary. It is further proposed to require bidders to deposit $10,000; also, upon award of contract, to give sureties in the sum of $35,000.

SANTA CRUZ, CAL.—It is stated that surveyors have commenced to survey reservoir sites in the vicinity of Big Creek, and will survey a line over the mountain to San Jose to furnish power for electrical purposes. F. W. Manton, C. E. Lilly and E. D. Perry, C. E., may be addressed.

SONOMA, CAL.—A company is reported to have been recently organized to build a plant to light this place.

MONTREAL, QUE.—The transforming house of the Citizens' Power & Light Co., situated at Cote St. Paul, a suburb of this city, was destroyed by fire Feb. 6, causing a loss of about $100,000. The company derived its power from the Lachine Rapids, the electric current being transmitted to Montreal. The plant has been in operation but a few weeks. Gen. Mgr., W. McLea Walbank.

NEW COMPANIES.—Western Electric Appliance Co., Newark, N. J.; $750,000, with $20,000 paid in; to manufacture and sell electric appliances; F. O. Mathiessen, New York; Henry E. Miese, Jersey City; Edward Weston, Newark.

Pennsylvania Manufacturing, Light & Power Co., Camden, N. J.; $15,000,000, with $1,000 paid in; to manufacture gas, oil, electricity, etc.; Jos. B. McCall, John B. Stauffer, Wm. P. Conover, Jr., F. H. McMouris, Philadelphia; James E. Hays, Camden, N. J.

Maurice River Water & Electric Power Improvement Co., Vineland, N. J.; $50,000, with $1,000 paid in; to generate electricity for power and light purposes, etc. Chas. K. Landis.

Lancaster Electric Light, Heat & Power Co., Lancaster, Pa.; to furnish electricity for lighting; it has secured a five-year contract for lighting the city; W. F. Beyer, Pres.; Geo. B. Wilson, Secy.; R. H. Brubaker, Treas.

Central Electric Co., Painesville, O.; $10,000; to construct telephonic systems and connections.

Gillette Generator Co., Chicago, Ill.; $20,000; C. R. Gillette, W. S. Holden, C. G. Little.

Needle Mountain Electric & Power Co., Durango, Colo.; $20,000; L. B. Jordan, John Larsen, George F. Caine.

Alaska Light & Power Co., Tacoma, Wash.; $25,000; I. W. Anderson, Fred C. Brewer.

Jamestown Electric Light & Power Co., Jamestown, Cal.; $500,000; Wm. A. Nevills, John Bellard, W. H. Martin, San Francisco; Wm. Grant, R. B. Carpenter, Los Angeles.

BRIDGES.

ADAMS, MASS.—John H. Emigh, Comr. Pub. Wks., North Adams, informs us that plans have been prepared for a plate girder bridge, mentioned in our last issue, at State St., to cross the Hoosac River, having an 80-ft. span and 49 ft. wide. No action has as yet been taken by the new administration. Chas. F. Stowell, Des. Engr., Albany, N. Y.

WORCESTER, MASS.—Preliminary plans are being prepared for the construction of a bridge across Lake Quinsigamond. F. A. McClure, Cy. Engr.

HALF MOON, N. Y.—The Dunsbach Ferry Bridge Co., Dunsbach's Ferry, was incorporated Feb. 13, with a capital stock of $40,000, to construct an iron bridge over the Mohawk River, between Half Moon and Colonie. It will be 150 ft. long on stone piers. Incorporators, James S. Clute, John H. Murphy, Wm. T. Ford, John Scanlon, Cohoes, N. Y., and E. W. Marvin, Troy.

MOUNT VERNON, N. Y.—Reports state that $70,000 has been appropriated for the construction of a bridge at West Farms to be 85 ft. long and 75 ft. wide to replace the present structure at West Farms crossing.

QUOGUE (L. I.), N. Y.—It is reported that arrangements are being made by the road commissioners for the construction of a bridge to cross the canal to connect the mainland with the beach.

UTICA, N. Y.—Reports state that a bill has been introduced by Senator Coggeshall, to appropriate $18,000 for the construction of a hoist bridge over the Erie Canal at Washington St.

WILLIAMSPORT, PA.—Press reports state that bids will soon be asked by the county commissioners for constructing bridges at Moreland and at Upper Fairfield.

NORFOLK, VA.—W. T. Brooke, Cy. Engr., has suggested a proposition to the council to replace the Atlantic City bridge by a steel structure on masonry piers, to be operated by electricity, to cost about $61,955, according to reports.

LOUISVILLE, KY.—John H. Pearson, Cy. Engr., has been ordered to prepare plans for a new bridge on Seventh St., north of Spring St., to cost $5,000.

COLUMBUS, O.—The county commissioners are considering the question of constructing a new bridge over Alum Creek on East Main St.; estimated cost, $45,000. Henry Maetzel, County Surv.

NEWARK, O.—The Columbus & Buckeye Lake St. Ry. Co. has agreed with the county commissioners to construct new steel bridges over the streams crossed by their lines and the county will construct their abutments.

RICHMOND, IND.—Bids are asked until March 4 for furnishing about 121,000 ft., B. M., of kyanized or creosoted lumber, to refloor the Doran Bridge. Fred. R. Charles, Asst. Engr.; H. S. Weber, Cy. Engr.; J. H. Winder, Cy. Clk.

FORT WAYNE, IND.—Reports state that the following bids were received Feb. 7 for constructing a foot bridge over the St. Mary's River at Swinney Park:

	Plan A.	Plan B.
Wisconsin Bridge & Iron Co., Milwaukee	$1,700	$1,883
Variety Iron Works Co., Cleveland, O.	1,920	....
Columbus Bridge Co., Columbus, O.	2,475	2,880
Massilion Bridge Co., Massillon, O.	1,775	....
Milwaukee Bridge & Iron Works, Milwaukee	1,970	2,143
Youngstown Bridge Co., Youngstown, O.	2,880	....
King Bridge Co., Cleveland, O.	2,650	2,675
Brackett Bridge Co., Cincinnati, O.	2,175	2,675
Bellefontaine B. & I. Co., Bellefontaine, O.	2,590	2,750
Lafayette Bridge Co., Lafayette, O.	2,190	2,622
Western Bridge Co., Chicago, Ill.	1,750	....

SAGINAW, MICH.—Bids are asked by the board of public works until Feb. 25 for constructing a bridge across the Saginaw River, at Court St. and Emerson Bayou at an estimated cost of about $66,000. Alfred Davies, Clk. Bd.

ALTON, ILL.—A committee consisting of Mayor Bruegeman, Aldermen Matthews and Davis, W. T. Norton and Daniel Miller have been appointed to take steps toward the construction of a viaduct over the tracks of the Chicago & Alton R. R.

DAKOTAH, IA.—Bids are asked until April 5 for constructing county bridges during 1898, according to reports.

DULUTH, MINN.—Local papers state that the St. Paul & Duluth and Northern Pacific R. R. Co.'s must construct a viaduct, to cost about $140,000, over their tracks on Garfield Ave. in the West End,

NEBRASKA CITY, NEB.—Bids are asked until March 4 for constructing bridges during the year ending March 1, 1899. H. R. Christy, County Audr.

TEKAMAH, NEB.—Bids are asked until March 1 for the construction of bridges for the year 1898, according to reports. W. A. Moyer, County Clk.

WICHITA, KAN.—Reports state that plans have been completed by City Engineer A. H. Jackson for the construction of a bridge by the Old Settlers' Association on Oak St. to have a 36-ft. arch with stone foundation and piers.

BUCKLEY, WASH.—Reports state that a contract has been awarded to Savage & Schofield, Olympia, Wash., at $4,878, for constructing a wood and steel bridge, 180-ft. span, over the White River at this place. T. Ryan, Chn. County Comrs.

KALAMA, WASH.—Bids are asked until April 7 for the construction of a 150-ft. span bridge across the Kalama River, to have a 225-ft. approach. W. S. Lysons, Clk. Bd. County Comrs.

MOUNT VERNON, WASH.—Reports state that A. W. Fox was recently awarded a contract by the county commissioners for repairing the bridge over the Skagit River by constructing a new pier and sheer boom at about $3,000.

TACOMA, WASH.—The county commissioners are considering the construction of a new bridge to replace the old structure, having a span of 180 ft., which was washed away at Elbe.

LOS ANGELES, CAL.—It is reported that a bridge will be constructed at a cost of $3,633 across the Arroyo Seco River, near Pasadena.

LEWISTON, IDAHO.—A bill has been presented to Congress for a stone bridge to be constructed across the Snake River at this place.

TARA, ONT.—Bids are asked until Feb. 23 for constructing a steel bridge 100 ft. long and 18 ft. wide. Engr., Jas. Warren, Walkerton, Ont.; Andrew Freeborn may be addressed.

BUILDINGS.

BOSTON, MASS.—Plans are being prepared, according to reports, for two 6-story brick, stone and terra cotta apartment buildings to be erected in this city for W. G. McLeod, 96 Inman St., Cambridge; estimated cost, $140,000.

BOSTON, MASS.—Reports state that Frank S. Robbins, Worcester, Mass., has been awarded the contract to build a business block on India St., to cost about $150,000. Arch., C. E. Park, Tremont Bldg., Boston.

WATERTOWN, MASS.—A contract will soon be let, according to reports, for erecting a church building for the Baptist Church of this place, to cost $50,000. F. E. Crawford, Chn. Bldg. Com.

BUFFALO, N. Y.—The state lunacy commission has decided to erect four new buildings for the Buffalo State Hospital, at a cost of about $80,000.

BUFFALO, N. Y.—George W. Carter & Sons have been awarded the contract for building a 3-story fireproof apartment building, at 199 West Huron St., for Mrs. Ruth A. Pattison, of 304 Woodward Ave.; estimated cost, $30,000. Archs., C. K. Porter & Sons, 43 American Block.—— Plans have been prepared for the erection of a business block on Main St., by the Glenny Estate, to cost about $50,000. Archs., Green & Wicks, 110 Franklin St.

BUFFALO, N. Y.—The park board, Feb. 10, received the following bids for (a) the erection of a complete conservatory at South Park; and (b) for the same, except houses Nos. 5, 6 and 8: Hitchings & Co., New York, (a) $108,001; (b) $91,638; Joseph Plenty, New York, (a) $105,900; (b) $89,810; Lord & Burnham, (a) $104,123; (b) $88,451; Wurtz & Son, Buffalo, (a) $104,586; (b) $87,900.

GENESEO, N. Y.—Bids are asked by the supervisors of Livingston county, until March 10, for the erection of the masonry and carpentry work of a new court house to be built in Geneseo. Archs., Bragdon & Hillman, Cutler Bldg., Rochester, N. Y.; Clk., Newton B. Gorham.

NEW YORK, N. Y.—A fire in this city, Feb. 11, damaged the Nassau Chambers Building, at 116 Nassau St., and adjoining buildings, causing an estimated loss of $40,000.——Another fire on the same evening destroyed the Atlantic Casino and Polo Club Building, at 8th Ave. and 155th St., owned by Major Geo. W. Sauer. Reported loss, $75,000; insurance, $40,000.——Plans have been filed by August Ruff, 29 East 3d St., for four 6-story brick flat and store buildings at 127 and 129 2d Ave., to cost $114,000. Arch., L. F. Heinecke, 62 Bowery; by Charles Buek, owner and architect, 109 West 42d St., for five 4-story brick and stone dwellings on 107th St., near Riverside Drive, to cost $105,000; by Eagan & Hallacy, 284 Columbus Ave., for two 7-story brick flat buildings on 34th St., near 7th Ave., to cost $200,000. Archs., Neville & Bagge, 217 West 125th St.; by Harry Fischel, 215 East Broadway, for three 6-story brick flat and store buildings on Clinton St., between Division St. and East Broadway, to cost $85,000. Archs., Horenburger & Straub, 122 Bowery; by Linton B. Matthews, 67 West 125th St., for five 4-story brick flat and store buildings at 3d Ave. and St. Paul's Place, to cost $88,000. Arch., Wm. A. Carlisle, 311 East 150th St.

NEW YORK, N. Y.—Plans have been filed by Louis J. Levy, 205 East Broadway, for two 6-story brick flat and store buildings, at 36 and 36½ Stanton St., to cost $55,000. Archs., Horenburger & Straub, 122 Bowery; by Ferdinand H. Mela, 41 Union Square, for a 9-story brick mercantile building, at Spring and Crosby Sts., to cost $150,000. Arch., R. T. Lyon; by Amund Johnsen, 1635 Fox St., for three 5-story brick flat and store buildings, at 99th St. and the Boulevard, to cost $120,000. Archs., Neville & Bagge, 217 West 125th St.; by Carrie S. Kennedy, 19 West 74th St., for five 4-story brick dwellings, on 114th St., near the Boulevard, to cost $100,000. Archs., Neville & Bagge, 217 West 125th St.; by Irons & Todd, 320 Broadway, for six 5-story brick flat buildings, at Central Park West and 101st St., to cost $305,000; Archs., Neville & Bagge, 217 West 125th St.

NORTH TONAWANDA, N. Y.—A new brick church building will be erected on Payne Ave., by the North Side Presbyterian Church, according to reports.

NEWARK, N. J.—It is reported that efforts are being made to interest local capitalists in a project to erect a 7-story hotel in this city, at a cost of about $1,000,000. Porteus R. Cunningham, West Orange, N. J., is said to be the chief promotor. Archs., Strong & Welby, Buffalo, N. Y.

ALLEGHENY, PA.—Plans have been prepared for a 12-story hotel and apartment house to be erected at Sherman and Montgomery Aves., at a cost of about $400,000; work to begin as soon as capital is fully subscribed. Arch., F. H. De Arment, 708 Penn Ave., Pittsburg, Pa.

PITTSBURG, PA.—A fire in this city, Feb. 9, said to be the largest in the history of Pittsburg, destroyed the buildings at 12th and 13th and Pike Sts., causing the following estimated losses: The Union Storage Co., $775,000; Hoevelers Storage Warehouse, including contents, $600,000; the Chautauqua Lake Ice Co., $150,000; buildings in Pennsylvania Ave., $25,000.——Estimates are asked until Feb. 17, according to reports, for the construction of the new Kaufman Building, to cost about $200,000. Arch., Charles Bickel, Methodist Bldg.

NORFOLK, VA.—The following bids were received by the supervising architect, Washington, D. C., for the installation of a low pressure hot water heating apparatus in the U. S. Building at Norfolk:

		Time.
W. E. Foster & Son, Norfolk	$3,475	40 days
Zellers & Co., Washington, D. C	2,990	40 "
Philadelphia Steam Heating Co., Phila., Pa.	3,771	40 "
Bromell Schmidt Co, York, Pa	3,725	35 "
Pittsburg Heating Supply Co., Pittsburg	3,000	40 "
Thomas & Smith, Chicago, Ill	3,507	*37 "
Saml. I. Pope Co., Chicago, Ill	2,987	40 "
Crook, Harner & Co., Baltimore, Md	3,230	45 "
Blake & Williams, New York	3,596	40 "
E. Rutzler, New York	4,323	36 "
Wm. N. Tobin, New York	4,099	40 "
Ogby & Co., Canton, O	3,725	40 "
McGinnis Smith Co., Pittsburg	3,859	40 "
Levalley McLeod Co., Elmira, N. Y	4,264	39 "
Jos. J. Lawler & Co., Norfolk	3,050	40 "
Barger Bros. & Co., Columbus, O	3,445	40 "
Jos. W. Bain, Norfolk	3,490	40 "
Thos. C. Buschas & Co., Baltimore, Md	3,575	40 "

*Working days.

CLARKESVILLE GA.—Bids are asked, until March 1, for erecting a brick and stone court house for Habersham county. Archs., Golucke & Stewart, 24½ Whitehall St., Atlanta, Ga.

NASHVILLE, GA.—Bids are asked until March 21 for the erection of a 2-story brick court house for Berrien county. F. M. Shaw, Chn. Bd. Comrs.; W. Chamberlain & Co., Archs., Knoxville, Tenn.

SAVANNAH, GA.—It is reported that the Cathedral of St. John the Baptist, which was burned on Feb. 6, will be rebuilt at once as the building was insured for $60,000. Captain John R. Dillon is said to be interested.

SAVANNAH, GA.—Bids are asked until Feb. 21 for erecting a castle hall for the Knights of Pythias association. Archs., Eichberg & Witcover.

MERIDIAN, MISS.—We are informed that the Southern Hotel in this city, which was partially destroyed by fire last May, will be rebuilt and made fireproof. Bids will be received by the First National Bank, the owner of the building.

CLEVELAND, O.—The Hoyt Building, at St. Clair and Bank Sts., was destroyed by fire, Feb. 12, causing a reported loss of $250,000. The building is said to have cost $100,000.

COLUMBUS, O.—Bids are asked by the board of education, until Feb. 23, for the purchase of $33,000 of school bonds. M. A. Gemuender, Chn. Com.

HAMILTON, O.—Bids are asked by the board of education, until March 4, for the erection of an 8-room addition to the 5th ward school building; also for furnishing heating and ventilating apparatus for the same. Pres., R. N. A. Andrews.

FARMLAND, IND.—Wm. S. Kaufman informs us that plans have been adopted and the money secured for the new building for the I. O. O. F. Bids will be received about March 1.

DETROIT, MICH.—Bids are asked by the supervising architect, until March 2, for furnishing the labor and material for the decorative painting of the U. S. Building in this city.

BLOOMINGTON, ILL.—It is reported that arrangements have been completed for the erection of a coliseum in this city to seat about 4,500 people and to cost $75,000. B. J. Claggett, John Eddy, Dr. J. W. Hall, and others, are interested.

CHICAGO, ILL.—The St. Luke's Hospital, it is said, will build a home and training school for nurses on Indiana Ave., near 14th St., to cost about $50,000. Work to begin in April.

CHICAGO, ILL.—Bids are asked until Feb. 24 by the directors of the Chicago public library for covering of boilers, exhaust feed water heater, certain air ducts and waste and soil pipes in the building for the Chicago public library in Dearborn Park in this city. Archs., Shepley, Rutan & Coolidge, Old Colony Bldg.; Secy., W. B. Wickersham.

MADISON, WIS.—Plans have been accepted by the normal school regents for a new 3-story school building to replace the one burned at River Falls. Total estimated cost, $50,000.

DES MOINES, IA.—Plans are being prepared, according to reports, for a 7-story brick, stone and terra cotta office building to be erected for Norman Lichty, at 6th and Walnut Sts., to cost about $85,000. Arch., Geo. E. Hallet, Equitable Bldg.

MONDAMIN, IA.—Bids are asked by the board of education, until March 25, for the erection of a brick school building. Secy., W. F. Wills; Archs., F. M. Ellis & Co., 51 Barker Block, Omaha, Neb.

OMAHA, NEB.—Bids are asked by the supervising architect, Washington, D. C., until March 9, for furnishing the material and for placing in position a tower clock and bell in the post office building, as stated in our advertisng columns.

ALVA, OKLA.—Bids are asked by the regents of the Oklahoma Normal School, until March 3, for erecting a 3-story brick and stone school building at Alva. Arch., Joseph Foucart, Guthrie, Okla.; Clk. Bd., J. L. Mitch, Edmond, Okla.

FORT WORTH, TEX.—A fire in this city, Feb. 9, destroyed the Hurley Building, owned by William Bullock, Trustee of the Simpson Estate, of Boston; the Farmers' & Mechanics' Bank, the Worth Cycle Co.'s building, etc., causing a reported loss of $250,000.

SPOKANE, WASH.—Bids are asked until March 15 for erecting a brick school building for District No. 81, to cost about $36,000. Arch., L. L. Rand, The Rookery.

DECOTA, CAL.—R. P. Hurlbert has been awarded the contract for erecting the Masonic Home at this place, at $43,500, according to reports.

HONOLULU, HAWAII.—Bids will soon be asked, according to reports, for erecting a 4-story brick building at Fort and Merchant Sts., to cost $50,000. Arch., M. Traphagen.

WATER-WORKS.

AUBURN, ME.—H. S. Ferguson, Lewiston, Me., has submitted plans for the proposed 10,000,000-gallon reservoir on Merrill Hill, for the water-works of this city. Supt., F. E. Bisbee.

ENFIELD, MASS.—H. M. Smith writes us that an application for a charter to extend the works has just been made to the legislature. The extension will require a stone dam, cast-iron pipe, one or two hydrants, valves, etc. The new supply will be secured from springs. At the town meeting held Feb. 9, it was voted to make as a committee the selectmen, the town treasurer and the town clerk. Population, 1,000. C. Richards, Town Clk.

ALBANY, N. Y.—Our correspondent informs us that T. Henry Dumary, Albany, will be awarded the contract for constructing water filtration plant, as advertised in Engineering News, at $300,866, this being the lowest bid. There were 10 bids submitted Feb. 15, the highest bid being $387,345. The itemized bids will be given in our issue of next week. Ch. Engr., Allen Hazen, St. Paul Bldg., New York; Supt., Geo. I. Bailey.

BUFFALO, N. Y.—Plans will be prepared for the proposed new pumping station for the city; estimated to cost $500,000.

CANANDAIGUA, N. Y.—Thos. Johnson, Supt Water-Works, writes us that it is expected to make some change in the pumping plant, by either increasing the hours worked or the power. No new pump will be required. Nothing definite has been done as yet.

KINGSTON, N. Y.—The commissioners will probably receive bids until about April 1 for improving the reservoir, well-house, etc., at a cost of about $20,000. Supt., O. C. Longyear; Secy., A. J. Phillips.

LA SALLE, N. Y.—We are informed that a franchise for works has been granted to the Buffalo Engineering Co. The supply will be secured from the Niagara River; estimated cost, $30,000. Population, 500.

LOCKPORT, N. Y.—C. F. Foley, Alderman, writes us that Parker & Co., canal improvement contractors, get $15,000 for five months to allow the water to flow to the city pumping station for the winter supply. A permanent water supply hinges on the building of a power canal, when the city agrees to pay $50,000 a year for 10 years or longer. Press reports state that the council will probably vote to enter into a contract with the Niagara, Lockport & Ontario Power Co. and the Lockport Water & Electric Supply Co. for a supply of 15,000,000 gallons of Niagara River water daily for 10 years on completion of a power canal, provided the companies will strike out of the proposed contract the clause requiring the city to pay an additional $1,000 for each 1,000 inhabitants in excess of 30,000 which the city may contain at any time after the expiration of the first 10 years.

PORT JEFFERSON (L. I.), N. Y.—W. T. Wheeler, Secy. Port Jefferson Water Co., writes us that bids for building the proposed works will be received about March 1. It will require a 250,000-gallon reservoir, a pump of 250,000 gallons capacity a day, about 2½ miles of street mains and 30 hydrants. The supply will be from artesian wells. Plans will be prepared at once.

OCEAN CITY, N. J.—It is reported that a franchise for a new supply has been granted by the council to the People's Water Co. The supply furnished by the Ocean City Water Co., it is said, is inadequate. Ezra B. Lake, Mgr.

VINELAND, N. J.—The Maurice River Water & Electric Power Co. has been incorporated to supply this place, Pittsgrove, Bridgeton and Millville, N. J., with water and power; capital stock, $50,000, of which $1,000 is paid in; incorporators, Chas. K. Landis, Marcus Fry and others, of Vineland.

WESTFIELD, N. J.—Press reports state that H. C. Sergeant and others have offered to supply this town with a new water supply. The present supply furnished by the Union Water Co., of Elizabeth, N. J., is said to be inadequate.

BOYERTOWN, PA.—This place is reported to have voted Feb. 15 in favor of issuing $35,000 in bonds for municipal works, notwithstanding the injunction granted against the town, noted in our issue of last week. J. K. Grant, Borough Solicitor.

COPLAY, PA.—The Spring Creek Water Co. is reported to have asked for incorporation to supply this place with water. P. S. Page, E. H. Lanbach, E. J. Grover and M. E. McDonald are interested.

MEDIA, PA.—This place voted Feb. 15 against issuing $45,000 in bonds for improving the works and for constructing a sewerage system. H. C. Howard, Chn. Com.; E. A. Price, Burgess.

WHITNEY, PA.—The Whitney Water Co. has been incorporated with a capital stock of $5,000 by Geo. I. Whitney, C. M. Wolfe, A. C. Knox, of Pittsburg, Pa.; John T. Rush, of Whitney; and J. R. Marshall, of Latrobe, Pa.

WILKES BARRE, PA.—Bids are asked by the Springbrook Water Supply Co., 18 North Main St., until March 4, for constructing an embankment dam, with a masonry corewall, on Gardner's Creek, in Plains township, Luzerne county.

WILLIAMSPORT, PA.—The local election Feb. 15 resulted in a victory for the municipal ownership candidates for the council. Out of the six wards electing councilmen, five were for municipal ownership of the works and the electric light plant. The present plant is owned by the Williamsport Water Co.

HYATTSVILLE, MD.—The question of issuing $25,000 of 5% bonds for the proposed works will probably be voted upon at the election in May. The legislature has been asked to grant the necessary authority. Maj. M. V. Tierney, Pres. Bd. Comrs.

BRISTOL, VA.—J. Beentong, Pres. Council, writes us that it is hoped to let the contract March 1 for sinking a 10-in. well 1,200 ft. for a water supply. It is hoped to secure a supply of 250,000 gallons of water a day. H. G. Peters, Chn. Com.

PETERSBURG, VA.—The council will ask for bids at once for furnishing about 900 water meters, according to reports. G. B. Gill, Cy. Arch.

VIRGINIA CITY, VA.—The committee is about to ask for bids for sinking an artesian well for water supply, according to reports.

FITZGERALD, GA.—An election will be held March 8 to vote on the proposition to issue $33,000 in bonds for the proposed works and light plant. The works will include two 500,000-gallon pumps, a steel stand-pipe, 40 hydrants, etc. C. C. Goodnow, Mayor.

TALLADEGA, ALA.—T. L. Bellengrath, Supt. Talladega Light & Water Co., writes us that the improvements to the works ordered by the council in January, noted in our issue of Jan. 27, include the building of a retaining reservoir, 20 × 60 ft., below the spring. This will be covered by a frame building. The work is under way, and will probably be completed in a few weeks.

ABERDEEN, MISS.—This place is reported to have been granted authority to issue $75,000 in bonds for works.

BAY ST. LOUIS, MISS.—R. Mendes, Secy. Cy. Council, writes us that the matter in regard to the proposed works, light plant, etc., has not been definitely decided upon. The issue of $40,000 in bonds authorized last year is still pending in the legislature and the Chancery Court. The prospects for settling the trouble are bright. J. F. Cazenve, Chn.; A. Keller, E. J. Bowers and J. B. Fahey are on the board.

HOLLY SPRINGS, MISS.—Bids are asked until March 28 for furnishing the materials and for constructing works and a light plant, as described in our advertising columns. Engr., W. G. Kirkpatrick, Jackson, Miss.; Mayor,, Sam. Finley; Clk., G. C. Cannon.

MEMPHIS, TENN.—An election is to be held in about 20 days to determine whether or not the city shall purchase the plant of the Artesian Water Co., which now supplies the city. A new supply by artesian wells will probably be secured. J. J. Williams, Mayor; A. T. Bell, Cy. Engr.

EAST LIVERPOOL, O.—The question of securing a better water supply and building a new reservoir is being considered. Supt., Philip Morley; Secy. Comrs., J. W. Gipner.

MADISONVILLE, O.—T. C. Finch, Supt. Water-Works, writes us that the village will vote, Feb. 26, on the question of issuing $2,500 in bonds for extending the works and light plant. J. H. Mitchell, Pres. Water-Works and Electric Light Trustees.

SANDUSKY, O.—The water trustees will recommend the extension of an 8-in. main in Hancock St. to the Soldiers' Home; estimated cost, $3,500. Supt., C. A. Judson.

ANGOLA, IND.—The National Mill, Water & Light Co., of Angola, was incorporated, Feb. 4, with a capital stock of $100,000. The company will operate a mill, control water power and furnish water and light to Angola. Incorporators, W. G. Croxton and P. A. Croxton, J. J. Kinney and A. R. Kinney and C. J. Pilliod. The incorporators built the works in 1895.

HUNTINGTON, IND.—The commissioners will lay about three miles of 6-in. cast iron pipe this season, according to reports. Supt., Wm. Schwartz.

WILLIAMSPORT, IND.—W. H. Gemmer, Cy. Engr., writes us that the date of letting the contracts for constructing the proposed works, noted in our issue of last week, has not been decided upon. The plans have not yet been completed. The supply will be secured from wells. Consult. Engr., Prof. E. A. Phillips, 1027 North Illinois St., Indianapolis, Ind.

WINCHESTER, IND.—It is stated that this place voted, Feb. 8, by a majority of 10, in favor of issuing $50,000 in bonds for the proposed works.

DELRAY, MICH.—Geo. P. Moog, Village Clk., writes us that no estimates for the proposed supply from the Detroit works have been made. When estimates are completed the question of issuing bonds will be submitted to the voters. Population, 3,000. Hugh Cary, M. D., John A. Rolf and Peter B. De Lisle compose the committee.

ESCANABA, MICH.—Press reports state as follows: On Monday, Feb. 14, the plant of the city water-works was to be sold to the highest bidder. This is done in order to pay off a mortgage made to the Farmers' Loan & Trust Co. Bonds will then be floated to the amount of $100,000. One of the provisions in the sale is that $7,000 is to be paid down at time of purchase. It is thought a local company will be formed to secure control of the plant, and conduct it.

ELGIN, ILL.—Bids are asked until Feb. 26 for furnishing pressure water filters of 500,000 gallons capacity. Supt., R. R. Pankin.

McCOMB, ILL.—The commissioners will sink an 8 or 10-in. artesian well about 1,350 ft. this spring, according to reports. There will be required a lift pump and a force pump. Supt., W. E. Thompson.

EVANSTON, ILL.—C. L. Williams, Comr. Dept. Pub. Wks., writes us that there are no definite plans as yet in regard to work on the intake into Lake Michigan, noted in our issue of last week. Mr. Williams has recommended that connection of the same be made with the shaft and system of wells which are not in use at the present time, keeping, however, the same connection as now exists, regulating the supply by valves. In the annual report he also recommended that there be a new and independent supply pipe or tunnel built one mile in the lake, as at present the city relies on the present intake, which is only 2,600 ft. long and 30 ins. in diameter.

NORMAL, ILL.—Bids are asked until Feb. 22 for pumping the materials and for constructing the works, as stated in our advertising columns. Engr., Geo. Cadogan Morgan, New York Life Bldg., Chicago; Clk. Trustees, E. H. Vencill.

PORT BYRON, ILL.—The Port Byron Pearl Button & Improvement Co. has been incorporated, with a capital stock of $5,000, to supply this place with water and light. A. A. Wendt, J. W. Simonson, L. S. Pearsall and W. B. Ladd are interested.

FORT SCOTT, KAN.—The council is reported to have voted to call an election to vote on the question of issuing $150,000 in bonds for municipal works and a light plant. For further information, see 1897 "Manual of Am. Water-Works," and Engineering News of July 15 and 22, 1897.

TOPEKA, KAN.—The council on Feb. 7 instructed the ways and means committee to proceed in the matter of securing municipal works. It is probable that the proposition will be submitted to the voters at the spring election. For further information see 1897 "Manual of Am. Water-Works." Councilmen Warner, Burgess and Pattison may be addressed.

ELKPOINT, S. DAK.—H. L. Moore, Cy. Clk., writes us that bids were received Feb. 5 for the purchase of bonds for the proposed works, and not for constructing works, as reported in our issue of Jan. 6. It will be two or three weeks before the council asks for bids for constructing the works, to cost about $12,000. A report states that the bonds were sold to S. A. Kean, of Chicago, Ill.

PIERRE, S. DAK.—J. E. Malleoy, Mayor, writes us that the city is buying the plant from the Pierre Water, Light & Power Co. No extensions to it will be made. Henry Karcher and W. G. Yates, Water Com.

BISMARCK, N. DAK.—The Bismarck Water Supply Co. has been incorporated, with a capital stock of $57,500, of which $250 is paid in, to supply this city with water. The Bismarck Water Co. was in the hands of a receiver last year. The new company is probably a reorganization of the old one. T. M. Chatard, Washington, D. C.; Geo. Worthington, of Howard county, Md., and Miles White, Jr., and J. S. E. Waters, of Baltimore, Md., are the incorporators.

FOREST CITY, MO.—E. M. Austin writes us that it is proposed to unite with Oregon, Mo., two miles distant, for a joint works, bids for which are being asked, as stated in our advertising columns. The supply will be secured from wells. Res. Engr., Chas. E. Young, Oregon; H. T. Alkire, Mayor, and L. I. Moore, Cy. Clk., both of Oregon, compose the committee.

OREGON, MO.—Bids are asked until March 7 for furnishing material and for constructing works, as stated in our advertising columns. Engr., Hiram Phillips, Oriel Bldg., St. Louis; Res. Engr., C. E. Young; Cy. Clk., L. I. Moore.

ST. JOSEPH, MO.—The committee wishes to correspond with parties with a view to supplying this city with water for 10 years from Dec. 10, 1899, as stated in our advertising columns. Chas. W. Campbell, Cy. Engr.

FAYETTEVILLE, ARK.—Bids are asked until March 20 for refunding $30,000 of 5% bonds of the Fayetteville Water Co., as stated in our advertising columns. Pres., W. B. Rees; Secy., C. W. Trott.

FULTON, ARK.—It is reported that the mayor wishes to correspond with manufacturers of supplies, windmills, etc., and the builders of small works.

HOT SPRINGS, ARK.—Geo. H. Lower, Cy. Clk., writes us that the water and light question having been adjusted with the Hot Springs Water Co., the city will not, at present, build new works, noted in our issue of Jan. 20.

LUFKIN, TEX.—John H. Snow writes us that bids for constructing works and for sinking an artesian well will be received in about 40 days. Population, 2,000.

SEGUIN, TEX.—J. Zorn, Mayor, writes us that the city will purchase the works of the Seguin Water & Ice Co. It cannot be stated what additions will be made until after the city has taken possession. Population, 3,600.

SHAWNEE, OKLA.—This place will vote, Feb. 21, on the question of issuing bonds for the proposed works, according to reports. The supply will be from springs. A stand-pipe will be required. Estimated cost, $10,000.

STERLING, COLO.—The question of issuing $12,000 in bonds for the proposed works and a light plant will be voted upon at the election in April. J. C. Aiken and H. C. Sherman, C. E., of the town board, may be addressed.

DAVENPORT, WASH.—The question of constructing works is being considered, according to reports. Adam Knox, Mayor.

MEDFORD, ORE.—The council is reported to have awarded a contract for operating the water-works and light plant to A. Proudfoot. Supt., E. W. Cardes.

HANFORD, CAL.—The council is reported as considering the question of constructing a municipal plant. Population (1890), 1,000.

LOS ANGELES, CAL.—Wm. H. Perry, Pres. Los Angeles City Water Co., is negotiating with the Fulton Engineering Works for furnishing a pump to replace the machinery at the Elysian Park Station, according to reports. The new pump will have a capacity of 6,000,000 gallons in 24 hours.

RANDSBURG, CAL.—We are informed that J. C. Quinn has secured subscriptions amounting to $3,000 for works for fire protection. The works will consist of a tank of 100,000 gallons capacity, at an elevation of 240 ft. above the town; 3,000 ft. of 4-in., 800 ft. of 3-in., 400 ft. of 2½-in. and 1,600 ft. of 2-in. pipe through the streets; from 20 to 30 hydrants and about 600 ft. of 2-in. hose. The water, for the present, will be hauled to the tank in wagons from wells about five miles distant, or from the end of the railway at Johannesburg, a distance of three-fourths of a mile. A movement is now on foot for the organization of a company to pipe water nine miles from wells for domestic and fire supply. R. W. Whitsitt, of this place, has the contract for digging 5,500 ft. of an 18-in. ditch for the small works at 4¼ cts. a cu. ft. Quotations have been received for furnishing pipe, tank, etc., but the contract has not yet been let. As an inducement to a company, the citizens offer to donate the plant. Population, 2,000. H. K. Wheeler, Engr., Randsburg, is in charge of the work. The committee consists of C. J. McDivitt, Pres.; G. W. McPherson, Secy.; Jas. Patrick, Treas.; J. G. Endland and H. K. Wheeler, all of Randsburg.

TEHACHAPI, CAL.—J. W. Fletcher, P. M., writes us that there are no prospects of building works in this place, reported in our issue of Feb. 3.

FORT WRANGLE, ALASKA.—T. R. Moore, of California, is reported as interested in the proposed works and light plant for this place.

ST. JOHN, N. B.—Bids are asked until April 1 for furnishing 3,116 tons of 24 and 12-in. cast iron water pipe. Supt. and Engr., Wm. Murdock; Dir. Pub. Wks., A. C. Smith.

LONDON, ONT.—John M. Moore, Supt. Water-Works, is reported to have completed plans for works for West London.

TORONTO, ONT.—Chas. H. Rust, Cy. Engr., has submitted estimates to the board of works for extending the mains in a number of streets, to cost about $30,000; for a main from College St., to cost about $135,000, and for improving the connection from the pumping station to lake shore crib, to cost about $450,000. The operating expenses for the year will be about $232,000. Mech. Engr., J. Williams.

SEWERAGE.

ANDOVER, MASS.—Abraham Marland, Town Clk., writes us that something may be done at the annual town meeting in March towards securing a system. John H. Flint, F. G. Haynes and Jas. P. Butterfield may be addressed.

CLINTON, MASS.—A bill has been prepared to be submitted to the legislature authorizing this city to build a system to cost not more than $250,000. J. W. Corcoran, Chn. Com.

WAKEFIELD, MASS.—R. S. Stout writes us that the question of constructing a system, noted in our issue of last week, will come before the annual town meeting, March 2.

WEBSTER, MASS.—John Flint, Chn. Com., writes us that the plans for the proposed system have been completed and have been approved by the state board of health. A bill is before the legislature authorizing the city to take land wherever needed, as the outfall sewer is over private and railway lands. Estimated cost, $90,000. Des. Engr., L. A. Taylor, Tremont Bldg., Boston.

BATAVIA, N. Y.—The taxpayers will vote on the question of constructing a system at the annual election March 8. A trunk sewer two miles long to the Stone Farm and sewage disposal beds are included in the plans. The system will cost about $250,000. A. W. Skelly and J. Holley Bradish, Sewer Comrs.

HUDSON, N. Y.—Wm. S. Lallenbeck, Cy. Clk., writes us that it is proposed to construct 10,800 ft. of 36-in. brick sewer; average cut, 10 ft.; estimated cost, $9,000. Chas. B. Gore, Cy. Engr.; John Franklin, Supt. Sts.

MOUNT VERNON, N. Y.—The state board of health is considering the plans for the proposed outlet sewer. Consult. Engr., J. Herbert Shedd, Providence, R. I.; Mayor Fiske and Aldermen Dollard, Howland and Howe may be addressed.

PLATTSBURG, N. Y.—The state board of health is reported to have approved plans for a new system.

ROCHESTER, N. Y.—Bids are asked until Feb. 19 for constructing a sewer in Campbell St., to cost $4,350; and until Feb. 23 for constructing sewers in Hague and Center Sts., to cost $4,350. Chas. M. Beattie, Clk. Executive Bd.; E. A. Fisher, Cy. Engr.

OCEAN CITY, N. J.—The People's Sewerage Co. is reported to have applied for a franchise. Ezra B. Lake, Mgr.

BEN AVON, PA.—Trimble & Miller, [illegible] Fourth Ave., Pittsburg, have completed plans for the proposed system. The borough council will soon decide upon when to begin work, according to reports.

MEDIA, PA.—At the election Feb. 1[illegible] this place voted against issuing $45,000 in bonds for a system and for improving the water-works. H. C. Howard, Chn. Com.; Edward A. Price, Burgess.

WASHINGTON, D. C.—D. E. McComb, [illegible]t. of Sewers, has made the following report on the [illegible] to intercept the sewage now flowing into James C[illegible] canal, which is being agitated. This canal now receives the sewage from 2,256 acres within the city, and from [illegible]14 acres outside Florida Ave., by means of the Tiber [illegible]wer. Its tributaries, and the smaller sewers below [illegible] Tiber sewer outlet. It will be necessary to complete [illegible] Tiber Creek and New Jersey Ave. high level interc[illegible]g sewer, a portion of which is now under contract [illegible]. K. Murphy. This will intercept the sewage in [illegible] Tiber sewer above the crossing of Indiana Ave. The [illegible] St. and New Jersey Ave. trunk sewer, from the interse[illegible] of 6th St. and Missouri Ave. to the site of the [illegible] pumping station, must be constructed. This sewer [illegible] required to intercept the sewage from the lower grou[illegible] adjacent to Pennsylvania Ave. The 4½ St. intercep[illegible] sewer, and the M St. intercepting sewer, between [illegible] and New Jersey Ave., are required to intercept the [illegible]age from a large section of South Washington. The [illegible]ping station at the lower end of New Jersey Ave., wi[illegible] necessary tide gates, screen chambers and pumping [illegible]achinery, will be required for the discharge of the sewa[illegible] into the Anacostia River. The following is an estim[illegible] of the cost of the work: B St. and New Jersey Ave. trunk sewer, between 6th St. and New Jersey Ave., and pumping station, $506,573; 4½ St. intercepting sewer, $112,500; M St. interceptor, between 4½ St. and [illegible]w Jersey Ave., $125,476; Tiber Creek and New Jer[illegible] Ave. high level interceptor, section now under contra[illegible] $281,700; sections not under contract, $151,811; pumping station, $627,250; total, $1,805,630.

HAMPTON, VA.—J. B. Hope, Jr., Mayor, writes us that the town will present a bill to the legislature authorizing the council to borrow not over $100,000 for building sewers and paving. Population, 7,000.

MEMPHIS, TENN.—Authority has been granted the city by the legislature, called in extra session for that purpose, to extend its corporate limits by annexing the suburbs of Madison Heights, Idlewild, Annesdale and others. This law, the primary object of which is to empower the city to extend its sewerage system to these former suburbs, goes into effect at once. The city will issue $[illegible],000 in sewer bonds. The extension of the system must be completed within two years. The annexed valuation of taxable property in the annexed district is $8,000,000. J. J. Williams, Mayor.

AKRON, O.—The city commissioners will give a hearing Feb. 14 in regard to the proposed main trunk sewer through sewer districts Nos. 3, 4, 5 and 10. F. C. Wilson, Cy. Clk.

CAMBRIDGE, O.—O. M. Hoge, Cy. Engr., writes us that bids will be asked about April 1 for constructing about two miles of 24 to 6-in. pipe sewer. Consult. Engr., A. S. White, Wheeling, W. Va.

COSHOCTON, O.—Bids are asked until Feb. 28 for the purchase of $2,700 of 6% sewer bonds. I. C. Dickerson, Clk.

EAST LIVERPOOL, O.—Plans for the proposed new sewers in district No. 2 have been completed by J. A. George, Cy. Engr. The question of building the same will be voted upon at the spring election.

SPRINGFIELD, O.—D. F. Snyder, Cy. Engr., has submitted plans and estimates for trunk sewers in two streets and local sewers in several streets. Mayor Good and Councilmen C. C. Fried and S. B. Stiles may be addressed.

WAPAKONETA, O.—Bids are asked until Feb. 28 for constructing sewers, grading, etc., in Defiance St., according to reports. V. B. Arnold, Village Clk.

DETROIT, MICH.—Bids were asked until Feb. 16 for furnishing the board of public works with iron castings for sewer gates, receiving basin covers, 50,000 bbls. of cement or water lime for constructing and repairing sewers, receiving basin stone, etc. D. W. H. Moreland, Pres.

MINNEAPOLIS, MINN.—The council on Feb. 8 ordered the constructing of about four miles of sewers, at a cost of $85,791. F. W. Cappelen, Cy. Engr.

SPOKANE, WASH.—Bids are asked until March 2 for constructing a sewer, laterals and connections in Sprague St. B. H. Fowle, Secy. Bd. Pub. Wks.

SANTA MONICA, CAL.—The city trustees received the following bids Jan. 31 for constructing an outfall sewer, screen basin, etc.: Darby Laydon & Co., San Francisco, $14,763; J. M. Gardiner, Los Angeles, $15,997; Healy, Tibbetts & Co., San Francisco, $15,470; Thompson Bridge Co., San Francisco, $15,000.

MONTREAL, QUE.—Local papers state that the council will soon consider plans for the proposed main sewer to drain the upper portion of St. Denis Ward; estimated cost, about $400,000. The construction will extend over a number of years. Percival St. George, Cy. Surv.

GARBAGE DISPOSAL—STREET CLEANING

ALBANY, N. Y.—Bids are asked until Feb. 21 for removing the street dirt from districts Nos. 1, 2, 3, 4 and 5. Two sureties of $5,000 each are required. Thos. J. Lanahan, Clk. Bd. of Contract.

MOUNT VERNON, N. Y.—Henry Fink has been awarded the contract for removing the garbage and ashes for two years at $6,000 a year. Mr. Fink is the present contractor for the work. The other bidder was Fred. Johnson. Chairman Wallendar may be addressed.

BAYONNE, N. J.—The board of health is considering ways of removing the garbage of this city. Vice-Pres., Henry T. Meigs.

TOLEDO, O.—Bids are asked until Feb. 22 for the collection and disposal of the garbage of the city for a period of five years; and also for erecting a plant. L. P. Harris, Cy. Clk.

MINNEAPOLIS, MINN.—Chas. T. Frane has been awarded the contract for collecting and removing the garbage for two years at $17,500 for the first and $17,000 for the second year. The total bids were given in our issue of last week.

ST. LOUIS, MO.—Bids are asked until Feb. 25 for sweeping and cleaning the streets for three years from March 1; deposit, $7,743. Robt. E. McMath, Pres. Bd. Administration.——Local papers state that Health Commissioner Starkloff is preparing an ordinance authorizing the letting of a new garbage collecting contract after July 14, when the present one with Col. Edward Butler expires. The period will be for 3½ years.

STREETS AND ROADS.

GLOUCESTER, MASS.—Winslow L. Webber, Cy. Engr., has submitted an estimate of $76,100 for the proposed macadamizing in portions of Eastern Ave., Essex Ave., Prospect St., East Main St., Western Ave. and Maplewood Ave.

ALBANY, N. Y.—Estimates have been submitted by Horace Andrews, Cy. Engr., for paving portions of 10 streets with asphalt; estimated cost, $167,590.

BUFFALO, N. Y.—Bids are asked until Feb. 23 for paving portions of Earl Place, Broadway, Franklin St., Seneca St., Clinton St. and Jersey St. with asphalt, brick, etc. R. G. Parsons, Secy. Bd. Pub. Wks.

CANANDAIGUA N. Y.—The village board is considering the question of vitrified brick paving, and a committee has been appointed to investigate the matter.

HUDSON, N. Y.—Wm. S. Hallenbeck, Cy. Clk., informs us that it is proposed to macadamize 20,000 sq. yds.; estimated cost, $15,000. Chas. B. Gore, Cy. Engr.; John Franklin, Supt. Sts.

ROCHESTER, N. Y.—A contract was awarded to the Rochester Vulcanite Paving Co., Feb. 8, at $26,554 for paving West Main St. with asphalt.

ATLANTIC CITY N. J.—The council approved on Feb. 14 a bill to be presented by Senator Hoffman to authorize considerable paving of the city.

JERSEY CITY, N. J.—A resolution has been adopted authorizing E. W. Harrison, Ch. Engr., 23 Fuller Building, to prepare plans for the proposed Western Boulevard.

HAMPTON, VA.—J. B. Hope, Jr., Mayor, informs us that a bill will be presented to the legislature at this session to authorize the council to borrow money not exceeding $100,000 for paving and constructing sewers in the principal streets.

NORFOLK, VA.—Reports state that the street committee has estimated the total cost of paving to be done this season at $31,737.

ATLANTA, GA.—Bids are asked by the city clerk until Feb. 21 for stone curbing and brick sidewalks for the year 1898 and repaving Marietta St. from North Ave. to Pouders Ave. David G. Wylie, Comr. Pub. Wks.

MACON, GA.—It is reported that Judge Emery Speer and others are making an effort to secure asphalt paving in Mulberry St.

HIGH SPRINGS, FLA.—Press reports state that the council has decided to pave North First St. with rock for a distance of one mile.

GREENCOVE SPRINGS, FLA.—Bids were asked until Feb. 15 at Magnolia Springs for constructing a proposed shell road, 26 miles long, from Greencove Springs to Jacksonville.

NEW ORLEANS, LA.—Bids are asked until Feb. 21 for paving Jackson Ave. with asphalt from Magazine St. to Prytania St., and Tulane Ave. with chert from Hagan Ave. to Carrollton Ave. P. Alph. Rabouin, Comptroller.

NEWPORT, KY.—The council has passed an ordinance to have Third St. paved with brick from York St. to Monument St. W. L. Glazier, Cy. Engr.

ALLIANCE, O.—The council has passed resolutions to pave Main St. with brick, from Arch St. to the Clarendon & Pittsford R. R., at a cost of about $8,584.

CAMBRIDGE, O.—O. M. Hoge, Cy. Engr., informs us that the council has ordered plans and specifications for paving 23,000 sq. yds. in Wheeling Ave. with brick, including 8,000 lin. ft. of curbing.

TOLEDO, O.—Mayor Jones has signed the ordinance to pave Warren St. with asphalt, between Bancroft and Delaware Sts., for which the contract was let some time ago to F. E. Cole at $14,000.

FORT WAYNE, IND.—A petition signed by F. V. Culbertson and others has been granted by the board of public works for asphalt paving in Woodlawn Ave., from Hoagland Ave. to Clinton St., and F. M. Randall, Cy. Engr., has been ordered to prepare plans and estimates for the improvement, and also for grading Breckenridge St., between Fairfield Ave. and Broadway, according to reports.

INDIANAPOLIS, IND.—Resolutions to pave portions of six streets with asphalt and portions of Pratt St., Southeast Ave. and Tenth St. with wooden blocks, have been passed by the board of public works.

VERNON, IND.—Bids are asked until Feb. 24 for constructing 8½ miles of pike road in Center Township. W. A. Cheever, County Comr.

MUNCIE, IND.—Bids are asked until March 14 for grading and covering with broken stone in Eighth St., from Beacon St. to Penn St. F. A. Eliod, Cy. Clk.

FLINT, MICH.—The plans submitted by the city engineer for repaving Saginaw St. and others adjoining at an estimated cost of $50,000, have been approved by the board of public works, and bids will be asked at once, according to reports.

PONTIAC, MICH.—Press reports state that this place will probably do $35,000 worth of brick paving in the spring.

BELLEVILLE, ILL.—Bids are asked until Feb. 19 for paving High St. with brick, according to reports. E. F. Winkler, Pres. Bd. Pub. Wks.

BLOOMINGTON, ILL.—Bids are asked until Feb. 17 for stone curbing on Chestnut St., between Center St. and Chicago & Alton R. R. C. F. Koch, Bd. Local Improvements.

ST. PAUL, MINN.—A hearing will be given Feb. 17 by the board of public works in regard to the proposed widening of South Wabasha St., from Congress to Winifred St.

ST. LOUIS, MO.—Bids are asked until Feb. 25 for constructing granite walks in Washington Square. Robt. E. McMath, Pres. Bd. Pub. Wks.

COLORADO SPRINGS, COLO.—Reports state that county commissioners Sinton, France and Parker are to take action toward the construction of county roads in the vicinity of Victor.

WALLA WALLA, WASH.—Bids are asked by the city clerk for grading McAuliff and Adella Aves., according to reports.

MANUFACTURING PLANTS.

BOSTON, MASS.—The 5-story building on Merrimac St., owned by the Tremont Temple Church, was burned recently, causing a reported loss of $50,000. Trustee, Geo. W. Chipman.

FREDONIA, N. Y.—F. H. Moir informs us that bids will soon be received for the erection of a beet sugar factory in this town by C. M. Fenton and assigns. Specifications have not yet been prepared, however, nor any materials ordered. Total cost, about $600,000.

BROOKLYN, N. Y.—Bids are being received, according to reports, for the erection of a 3-story brewery building to be erected on Washington Ave., near Malborn St., at a cost of about $65,000, for Frank Moesner. 53 Woodbine St. Arch., P. Braender, 213 East 81st St., New York.

CAMDEN, N. J.—Thomas Stephen, Arch., Masonic Temple, writes us that the factory building to be erected for the Camden Land & Improvement Co. will be four stories high, 65 × 100 ft., and will cost about $15,000. Bids are asked until Feb. 17.

PHILADELPHIA PA.—It is reported that Roydhouse, Arey & Co. will build a 3-story addition, 88 × 138 ft., to the Baldwin Locomotive Works' machine shop, on Pennsylvania Ave., between 16th and 17th Sts.

REYNOLDSVILLE, PA.—Press reports state that a new silk mill will be erected at this place by the American Silk Co., represented by J. W. Place, of New York. It is said that the main building will be two stories high, 46 × 330 ft., and that 350 hands will be employed.

EAGLE ROCK, VA.—Percy L. Banks, C. E., Roanoke, Va., writes that he is investigating the advisability of erecting a large canning plant near Eagle Rock, for the manufacture of fruit and vegetable boxes and tin cans, and that he will furnish information to interested parties.

ALEXANDRIA, LA.—The building and machinery of the Alexandria Cooperage Co. were recently burned; estimated loss, $25,000.

OWENSBORO, KY.—The warehouse of the Marsden Cellulose Co., at Marsden, has been burned; reported loss, $20,000. W. W. Gibbs, Pres. Marsden Co., 850 Drexel Bldg., Philadelphia, Pa.

HAMILTON, IND.—Plans have been prepared, according to reports, for a large printing plant to be erected at Hamilton for the W. B. Conkey Co., 341 to 351 Dearborn St., Chicago; estimated cost, $150,000. Arch., Geo. C. Nimmons, 94 La Salle St., Chicago.

GRAND RAPIDS, MICH.—Plans have been prepared for a 6-story factory building to be built in this city for Rindge, Kalmbach & Co., at a cost of about $75,000. Arch., J. H. Wagner, Portland Block, Chicago, Ill.

CHICAGO, ILL.—A fire in this city Feb. 5 destroyed the pattern shop of the Vulcan Iron Works at Milwaukee Ave. and Clinton St., causing a reported loss on the building of $35,000. Pres., W. H. Warrington.

DENVER, COLO.—Reports state that a machine shop, 266 × 132 ft., will be built in the spring as an addition to the plant of the F. M. Davis Iron Works Co. The company is also considering further improvements to its present buildings.

GAS PLANTS.

BOSTON, MASS.—The Berlin Iron Bridge Co., East Berlin, Conn., has been awarded a contract for furnishing and constructing the steel roof truss and frame work for the new Boston Gas Light Co.'s plant at Commercial Point.

GREENSBURG, PA.—Reports state that the artificial gas plant, containing 2,700 cu. ft. of gas, exploded, causing a loss of $2,500.

BLOOMINGTON, IND.—A franchise has been granted to F. H. Freese and S. E. Freese, Albion, Mich., to construct and operate a gas plant in this place.

CHARLOTTETOWN, P. E. I.—The Charlottetown Gas Co. is receiving bids for constructing additional works, according to reports.

NEW COMPANIES.—New Gaslight Co. of Philadelphia, Philadelphia, Pa.; $1,000; to supply gas for lighting purposes; W. M. Oglesby, H. L. Nissley, H. C. Ross, B. C. Thompson, J. W. Millhouse, Harrisburg, Pa.

United Gas, Heat & Power Co., Kansas City, Mo.; to manufacture chemical gas; S. W. Miller, E. E. Eads, Boston; R. J. Lilly, Cleveland, O.

CONTRACT PRICES.

WATER PIPES, HYDRANTS, CASTINGS, ETC.—Elmwood Place, O.—Harry G. Schaefer, Village Clk., writes us that the following bids were received Feb. 2 for furnishing water pipe, special castings, etc.:

Items.	Queen City Brass & Iron Works, Cincinnati, O.	Michigan Brass & Ir'n Wrks, Detroit, Mich.— 1.	2.
Fire hydrants:*			
2½-in. double nozzle ...	$17.00	$21.00	$19.00
2½-in. single nozzle	13.50	20.50	18.50
Valves: Secondary, etc.....	6.75	8.75	.....
4-in. and boxes.....	7.15	8.75	.....
6-in. " "	10.25	11.50	.....
8-in. " "	15.65	16.00	.....

* The Bourbon Copper & Brass Works, Cincinnati, was awarded the contract for hydrants, valves, etc., although its bids were somewhat higher than the Queen City company; the total bid being about $2,100. 1. With frost cases and shut-off. 2. Without frost cases, but with shut-off.

Bids Received at Elmwood Place, O., Feb. 2, for Laying Pipe, Setting Hydrants and Valves, and Extra Excavation.

Items.			*Frank Burns & Co. 632 June St., Cincinnati.	T. C. Brooks & Co., Jackson, Mich.	John Snyder, Norwood, O.	Ritter & Tosso, Elmw'd Place, O.	Van Sandt & Meeds, Cincinnati, O.	John Molloy, Cincinnati, O.	W. H. Louthan, Hamilton, O.
Laying pipe:	8-in. and specials	3,170 ft.	$0.12	$0.19	$0.15	$0.12½	$0.1798	$0.19½	$0.20
" "	6-in. " "	4,660 "	.10	.13	.13	.10⅝	.1508	.15⅝	.14
" "	4-in. " "	24,220 "	.09½	.11	.12	.089	.1227	.14⅜	.10
Setting:	Hydrants, each.....	45...	1.00	1.00	.60	.50	1.00	1.00	1.00
"	Valves and boxes, each	102...	.25	.50	.30	.30	.27	.35	1.00
Extra excavation, cu. yds.		1,000...	.05	.20	.20	.02	.20	.32	.15

* Contract awarded.

Bidder.	Pipe, 4, 6, 8-in., 414 tons.	Special castings, 17,500 lbs.
Pipe and castings:		
Addyston Pipe & Steel Co., Cincinnati.	$15.30	$0.02
*South Pittsburg (Tenn.) Pipe Works...	15.00	.02
Chattanooga (Tenn.) Fdry & Pipe Wrks	16.40	.02

*Awarded contract.

MACADAMIZING.—Burlington, Vt.—A. N. Chamberlain, Ch. Clk., Office of Constructing Q. M., informs us that the following bids were received Feb. 9 for an 8-in. deep macadam road, 5,320 ft. long and 18 ft. wide:

Gardner C. Luther, Providence, R. I.	$9,257
M. J. Fitzpatrick, Plattsburg, N. Y.	7,911
Frank Pidgeon, Saugerties, N. Y.	8,742
Peter Sheeran, Burlington, Vt.	8,336
Geo. A. Rogers, Plattsburg, N. Y.	8,991
Chas. L. Woodbury, Burlington, Vt.	7,691

G. C. Luther bid $1.24 a lin. ft., and Geo. A. Rogers bid $1.69 a lin. ft. The war department was recommended to award the contract to Chas. L. Woodbury.

REPAIRING BRICK SEWER.—St. Louis, Mo.—The following bids were received by B. H. Colby, Sewer Comr., Feb. 7 for furnishing the labor and material for taking out of the timber bottom 620 ft. of the Mill Creek sewer, and for putting in an 18-in. Portland cement concrete invert; all local bidders: G. Eyermann, Jr., $23.60 a lin. ft.; Harry F. Heman, $22.50; Heman Construction Co., $15.00; Robt. Wyckoff, $21.00; Skrainka Construction Co., $16.50; Jas. Black Masonry & Construction Co., $26.10; R. J. McDonald, $18.10; H. Ruecking & Co., $15.75. The sewer at this point is 20x15 ft. About 141,000 ft. B. M. of old timber is to be removed. Price includes all necessary flumes and dams and all other expenses. The last contract for similar repairs was let at $30 a ft.

WATER PIPE.—Anburn, Me.—The following bids were received by the water board Feb. 4 for furnishing 200 tons (of 2,240 lbs.), of 4, 6, 16 and 20-in. cast-iron water pipe:

R. D. Wood & Co., Philadelphia, Pa.	$19.60
Warren Foundry & Machine Co., New York.....	19.90
McNeal Pipe & Foundry Co., Burlington, N. J.....	19.90
Donaldson Iron Co., Emaus, Pa.....	20.64
M. J. Drummond & Co., New York	20.80
Lester E. Wood, New York	21.00
Jaekson, Wooding & Co., Berwick, Pa.	21.15
Pittsburg Pipe Co., New York	22.40
Fox & Engle, New York	21.60
Anderson Pipe & Foundry Co., Philadelphia, Pa. ..	22.62

PAVING BLOCKS.—Boston, Mass.—The following bids were received by B. W. Wells, Supt. Sts., Feb. 7 for furnishing 300,000 small paving blocks: Morse & Co., $47.80 a 1,000; Quincy Quarry Co., $45; the Pigeon Hill Granite Co., $51.55; Ola Anderson, $43.95; the Rockport Granite Co., $48.97; the James Granite Co., $44.50. For 800,000 large paving blocks: Ola Anderson, $48.00 per 1,000; the Cape Ann Granite Co., $52; the Rockport Granite Co., $50.87; the Pigeon Hill Granite Co., $52.35; Morse & Co., $47.90; the James Granite Co., $48.95; Austin, Ford & Son, $44.30.

BRICK PAVING.—Hazelton, Pa.—A. Brooks Cellax, Cy. Engr., writes us that the bids for 18,000 sq. yds. of brick paving received Feb. 4, ranged from $1.45 to $2.50 a sq. yd., the totals being $27,237 to $46,710.

ASPHALT PAVING.—Denver, Colo.—The board of public works has awarded the contract for asphalt paving in Colfax Ave. to the Colorado Paving Co. at $1.80 a sq. yd. The property-owners will pay $82,000 of the cost and the street railway company about $27,000.

WATER PIPE.—Manchester, N. H.—The board of water commissioners received the following bids Feb. 8 for furnishing 750 tons of 14 to 4-in. cast-iron water pipe and special castings; the total on the pipe will be about $15,000, and that on castings, about $3,000:

Bidder.	Pipe, a ton of 2,240 lbs.	Special castings, a lb.
R. D. Wood & Co., Philadelphia $19.70		$0.0195
M. J. Drummond & Co., New York.. 19.75		.0188
McNeal P. & Fdry Co., Burlington, N.J. 19.70		.019
Warren F. & M. Co., New York..... 19.70		.02
Chas. Millar & Sons, Utica, N. Y..... 21.05		.019

BRICK SEWER.—San Francisco, Cal.—C. B. Williams has been awarded the contract for constructing a 42-in. brick sewer in N St., at $7.40 a ft.

GRADING.—Toledo, O.—Chas. W. McKinney is reported to have been awarded the contract for grading in Kelsey Ave., at 12 cts. a cu. yd.; the highest bid being 33½ cts. a cu. yd.; total, $5,400.

MISCELLANEOUS CONTRACTS.

BONDS.—Omaha, Neb.—Bids are asked until Feb. 28 for the purchase of $300,000 of 4% bonds. A. G. Edwards, Cy. Treas.

TELEPHONE SYSTEM.—Dunkirk, N. Y.—The Dunkirk & Fredonia Telephone Co. has applied for a franchise to establish a telephone system in this city.

SEA WALL.—Boston, Mass.—Wm. H. Ryan, Boston, was awarded a contract, Feb. 15, at $21,180 to construct a sea wall on Dorchester Ave extension. Wm. Jackson, Cy. Engr.

RIVER IMPROVEMENTS.—Calcasieu River, La.—Bids are asked until March 18 for improving the Calcasieu River and Pass. Maj. James B. Quinn, U. S. Engr., New Orleans.

WHARF.—Santa Monica, Cal.—Reports state that the Thompson Bridge Co., San Francisco, has been awarded a contract at $15,000 to construct a wharf 1,250 ft. long at this place.

WIRE FENCE.—Pine Ridge Indian Reservation, S. Dak.—Bids are asked until March 2 for constructing about 60 miles of wire cattle fence with iron or steel posts along the northern boundary of the Pine Ridge Indian Reservation. Address W. A. Jones, Comr. Indian Affairs, 1602 State St., Chicago, Ill.

TUNNEL.—Allegheny, Pa.—Postmaster I. R. Stayton has been authorized to ask for bids for constructing a tunnel for electric light wires, etc., from Ohio St. to the post office building.

MONUMENT.—Buffalo, N. Y.—A resolution by the council directing the construction of a monument to the memory of Gov. De Witt Clinton, to cost $10,000, has been referred to the committee on finance.

LOCK AND APPROACHES.—New Orleans, La.—Bids are asked until April 15 for constructing the lock and approaches to the Bayou Plaque mine, as stated in our advertising columns. Maj. James B. Quinn, U. S. Engr., New Orleans.

TOWING CARRIAGE.—Washington, D. C.—The following bids were received at the navy department, Feb. 8, for furnishing a towing carriage:

Wm. Sellers & Co., 1600 Hamilton St., Philadelphia.	$5,000
Alfred Box & Co., Front & Poplar Sts., Philadelphia.	12,000
Penn Bridge Co., Beaver Falls, Pa.....	6,750
Morgan Engineering Co., Alliance, O.....	7,610
General Electric Co., Schenectady, N. Y.....	5,500

WHARF.—North Bay, Ont.—Bids are asked until Feb. 21 for constructing a wharf in North Bay, according to reports. H. A. Gray, Town Clk., Confederation Life Bldg., Toronto, Ont.; E. F. E. Roy, Secy. Dept. Pub. Wks., Ottawa, Ont.

CANAL WORK.—Chicago, Ill.—It is reported that a petition by Alderman Barry has been presented to the harbor committee asking a survey for the straightening and widening of the Ogden Canal at the Halsted St. bridge estimated to cost about $300,000.

JETTIES AND SHORE PROTECTION.—Cleveland, O.—The bids received Feb. 9 by the park commissioners for constructing jetties and shore protection in Edgewater Park, as advertised in Engineering News, have been rejected. C. W. Pratt, Jr., Ch. Engr. Bd.

DRAINAGE SYSTEM.—Raleigh, Ont.—Bids were asked until Feb. 12 for the erection of a pumping plant capable of raising and discharging 20,000 gallons of water a minute with a lift of 6 ft. for the pipe drainage works and extension. N. Shepley, Reeve, Charing Cross, Ont.

RIVER WORK AND TAIL RACE.—Chicago, Ill.—Bids are asked until April 6 for constructing a tail race and for deepening and widening the Desplaines River channel, as stated in our advertising columns. Jas. Reddick, Clk. Bd. Trustees, Sanitary District, 1010 Security Building.

CANAL.—Annapolis, Md.—A bill has been introduced to incorporate the Baltimore & Annapolis Canal & Navigation Co. to have a capital stock of $100,000. It proposes to construct a canal 6 ft. deep from Annapolis to Baltimore, according to reports. The incorporators are: Arthur M. Easter, J. M. Easter, Baltimore; E. S. Riley, Luther H. Gadd, Annapolis; Peter Potee.

INDUSTRIAL NOTES.

THE WEST END ROLLING MILLS, Lebanon, Pa., is said to have recently shipped five carloads of 2½-in. chains for heavy vessels and other uses, to the Hawaiian Islands.

THE MACK PAVING CO. and the PENNSYLVANIA ASPHALT PAVING CO., Philadelphia, have removed their offices to 513-516 Fidelity Bldg., Broad St., above Arch St.

MR. WALTER W. FIELD, 117 Main St., Cambridgeport, Mass., has lately taken the agency for New England of the Lambert Hoisting Engine Co., Newark, N. J., in connection with his regular business.

THE BERLIN IRON BRIDGE CO., East Berlin, Conn., has the contract for a new building, 70 × 120 ft., for the American Coffee Co., Brooklyn, N. Y., to be used as a power house and boiler room.

THE McNEAL PIPE & FOUNDRY CO., Burlington, N.J., has opened offices in rooms 910, 911 and 912 Land Title Building, Broad and Chestnut Sts., Philadelphia. The address of Mr. L. R. Lemoine, Vice-President and General Manager, is Philadelphia.

THE RHODE ISLAND LOCOMOTIVE WORKS, Providence, R. I., has filed a petition in insolvency, and Mr. Geo. H. Wilson, Treas., has been appointed custodian of the property, according to report. The assets are said to be $518,376, and the liabilities, $616,704.

H. A. BECKLEY & CO., Garwood, N. J., have just shipped 115 placer screens to the Klondike, and are now building 400 more for the same place. The company has a large number of contracts on hand for sand-washing screens. All kinds of screens are made by this company.

THE DAVIS & EGAN MACHINE TOOL CO., Cincinnati, O., has received through its office at Berlin, Germany, orders for a number of screw machines, lathes, drill presses, and shapers, from the Electricitats Gesellschaft, Helios of Cologne, and Shuckert & Co., of Nuremburg. Both of these concerns are large builders of electrical equipments.

THE FRICK CO., Waynesboro, Pa., has the contract for the ice machinery for the new cold storage plant of the Cudahy Packing Co., South Omaha, Neb. The contract for packing-house machinery for the new beef house and sausage factory has been given to the Weir & Craig Co., Chicago. The buildings are being erected under the supervision of the General Superintendent of Construction of the Cudahy Packing Co. and the balance of the work will be done in its own shops.

THE KANSAS CITY WHEEL SCRAPER CO., 2416 Broadway, Kansas City, Mo., Mr. E. A. Brown, Treas. and Mgr., advises our representative that they have just closed a thoroughly satisfactory year, and that the outlook for 1898 is very bright. This company has recently put a drag scraper of new design upon the market which is giving good results, and is perfecting a wagon loader and street sweeper. The two latter machines they expect to have upon the market for the spring trade.

THE WHITING FOUNDRY EQUIPMENT CO., Harvey, Ill., has completed arrangements to be the sole manufacturer and sales agent for the Avery molding machine. Mr. Whiting advises our representative that this machine is adapted for all foundry work where parts are duplicated in large numbers, and especially to plow, stove and sash-weight factories. The demand for the Whiting cupola is said to be increasing rapidly, sales having recently been made to the following: Niles Tool Works, Hamilton, O.; Edward P. Allis Co., Milwaukee, Wis.; Griffin Car Wheel Co., Chicago; Hoover, Owen & Rentschler Co., Hamilton, O.

THE SARGENT CO., Chicago, reports a large business in railway supplies during the past few weeks, and informs us that orders for the new Diamond "S" shoe are coming in rapidly. This shoe was described in our issue of Oct. 7, 1897, and is made of cast-iron with an insert of expanded steel, ensuring great friction and long life without injury to the tire. Tests have been made on a large number of railways with uniform satisfaction. Mr. W. D. Sargent, Vice-Pres. and Gen. Mgr., has just returned from Europe, where he has been engaged in introducing the shoe. Several of the railways in England are already using them, and the prospect for an extension of this business is most flattering.

THE UNION AKRON CEMENT CO., Buffalo, N. Y., in the fall of 1872 furnished 2,100 bbls. of Akron (Star brand) cement to the U. S. government, for putting in the lower part of the concrete foundation for the Chicago post office. Nearly 25 years afterwards, during the spring of 1897, the building was taken down, to make room for a new post office. The company have recently received a letter from the Chicago House-Wrecking Co., which had the contract for taking down the old building, informing it that the resistance of the foundation to the drills and dynamite was very great, and was the worst thing it had ever encountered. Drill holes were made every 18 ins. and five times the amount of dynamite figured upon was used.

THE FERRACUTE MACHINE CO., Bridgeton, N. J., manufactures presses, dies and other machinery and tools for producing various articles in sheet-metals. This industry has increased during the past few years, especially in the manufacture of bicycles, hardware and other goods which are made from soft decarbonized steel. Many of the articles in ordinary use, which were formerly forged and then finished to shape by boring and turning, are now formed from sheets and electrically welded or brazed, so that they can scarcely be detected from the solid article, and are in many respects better than the forged pieces. Other articles can be formed from pieces of steel rod into finished shapes, which were formerly turned or milled, and in this way can be produced at a much lower cost. There are about 30 different trades in which the Ferracute company's presses are used.

FRASER & CHALMERS, Chicago, Ill., call attention to the duty performance of the Riedler pump built by them for the Chapin Mining Co., Iron Mountain, Mich. The pump is a triplex differential Riedler, with plungers 6¾ ins. and 9⅝ ins. diameter and 30-in. stroke, driven by a horizontal triplex tandem-compound-condensing Corliss engine, with steam cylinders 22 and 36 ins. diameter and 30-in. stroke; capacity, 2,200 U. S. gallons, against a total head of 1,700 ft. when running about 74 revolutions a minute. It is designed to run economically with steam pressure of 110 lbs. a sq. in., or by compressed air with a pressure of 60 lbs. a sq. in. at engine. For this reason the engine is equipped with the latest improved form of full-stroke Corliss valve gear and is claimed to be the largest underground pumping engine in the world. At present it is working on the 1,310-ft. level, but later will be lowered to the 1,700-ft. level.

THE WEBER GAS & GASOLINE ENGINE CO., 419 S. W. Boulevard, Kansas City, Mo., has made the following recent sales to the mining trade of Weber engines: 20-HP. gasoline engine and pumping plant to the Texas Gold Mining Co., Buford, Ga.; 4 gasoline engines, including pumping and electric lighting plant, to Squaw Creek mining district; 1 double drum, geared, gasoline hoisting engine, 40 HP., and 1 single drum gasoline hoisting engine, 10 HP., to the Guggenheim Smelting Co., of Mexico; 1 10-HP. blowing engine to Sargent, Colo.; 2 gasoline heavy mill engines to Benson, Ariz.; 1 40-HP. gasoline engine, to operate placer mining pump, to E. L. Trent & Co., Salt Lake City, Utah; 2 complete placer mining plants,, including 2 40-HP. Weber hoisting gasoline engines, single drum, geared, to the Consolidated Kansas City Smelting & Refining Co., of Kansas City, Mo.; one 10-HP. gasoline hoisting engine, drum, geared, to the Gopher Gold Mining Co., Chaparel, Ariz.; 1 10-HP. friction gasoline hoisting engine, to G. T. McLaughlin, San Pedro, New Mexico.

THE WALKER CO., Cleveland, O., has an order from the Standard Light & Power Co., Dallas, Tex., for two alternators, of 225 and 325 K-W. capacity, respectively, to be direct-connected to Erie engines, and designed to run at 125 revolutions a minute. The current will be two-phase and 60 cycles. The company will also furnish two direct-connected railway generators of 225 and 325 K-W. capacity respectively. Two alternating generators of 250-K-W capacity, each, of the belted type, are being built for the North River Electric Light & Power Co., New York—Townsend, Reed & Co., St. Louis, Mo., have purchased two 200-K-W. direct-connected Walker railway generators, and 8 double, 10 S-railway equipments with "S" controllers, for the St. Louis, Belleville & Suburban Electric Ry.—The Glasgow Municipal Tramway, Glasgow, Scotland, will place a number of Walker motors on its cars at an early date, and the electric railway of Alexandria, Egypt, will increase its present Walker plant by the addition of a 150-K-W. belted generator with switchboard and four double 3-N equipments.

NEW COMPANIES.—South American Railway Construction Co., Jersey City, N. J.; $50,000, commencing with $1,000; to build and equip railways, etc.; George Hoadley, 33 East 50th St.; C. H. Sherrill, 6 East 9th St.; Chas. H. See, 5 Gramercy Park, all of New York; T. H. Powers Farr, West Orange, N. J.; Archer Harman, Louisville, Ky.

North & South Construction Co., Jersey City, N. J.; $100,000, commencing with $25,000; to conduct a general contracting business; Thos F. Cashman, New York; Geo. A. McGlone, Bolivar, W. Va.; Chas. N. King, Jersey City.

Hackett Refrigerator Car Co., Charleston, W. Va.; $1,000,000, commencing with $60; to manufacture refrigerators, cars; J. S. Brackett, Arlington, Mass.; C. H. Allen, J. M. Allen, E. F. Sweet and B. A. Plumley, all of Boston, Mass.

Union Equipment Co., Jersey City, N. J.; $1,500,000, commencing with $1,000; to manufacture and dispose of electric appliances, to build electric railways and machinery appertaining thereto, etc.; Fred. H. Hitchcock, Glenn R. Gardner and Francis J. Bayer, New York; Frederic W. Hunter, Cranford, N. J.; Frank G. Gourley, Stamford, Conn.

Carpenter Automatic Valve Co., Camden, N. J.; $250,000, commencing with $1,000; to manufacture safety devices for steam boilers, etc.; Wm. C. Bullitt and William Morris, Philadelphia, Pa., and others.

Prince William Sound Mining & Development Co., Juneau, Alaska, incorporated in West Virginia; to erect buildings, mills, wharves, etc.; L. L. Williams, Juneau; A. A. Howard, W. R. Baker, David Spahr and D. W. Shackleford, all of Boonville, Mo.

Empire Transportation Co., Camden, N. J.; $3,000,000, commencing with $2,500; to conduct a transportation, trading and mining business; Wm. H. Barnes, Clement A. Griscom, Samuel F. Houston and Jas. S. Swartz, all of Philadelphia; Geo. H. Higbee, Merchantville, N. J.

Clarion Lumber Co., McConkey, W. Va.; $1,000,000, commencing with $5,000; to deal generally in lumber, operate tramways, etc.; M. Boyce and J. A. Magee, Clarion, Pa.; J. B. Patterson, W. Va.; Reid Cyphert, McConkey.

Ganley River Co., Lane's Bottom, W. Va.; $5,000,000; to deal generally in timber; Allen Orr, New York; D. Ricketts, Leamington, England; Myer Newberger, Parkersburg, W. Va.; Louis Bushfield, Denver, Colo.; E. E. Robertson, Lane's Bottom.

Birch River Coal & Lumber Co., Charleston, W. Va.; $150,000 commencing with $2,500; to bore for oil and operate tramways, etc.; M. H. Dyer, E. B. Dyer, R. B. Cassidy, G. S. Couch and R. T. Garmichart, all of Charleston.

New Jersey Elevating & Transportation Co., Hoboken, N. J.; $150,000, commencing with $1,000; to build and operate elevators for elevating and transporting people, freight, etc., between West Hoboken and Weehawken, N. J.

Seattle & Dawson City Transportation & Merchandise Co., New York; $250,000; commencing with $100; to build docks, wharves, etc.; D. E. Wing, Hackensack, N. J.; R. A. Talbot, Seattle, Wash.; C. E. Hand and W. E. Booker, Jersey City, N. J.; W. H. B. Lyon, New York.

American Universal Mill Co., New York; $5,000,000, commencing with $500; to manufacture and deal in iron ore, etc.; E. B. Mowbray, John Davis, John H. Kelly and G. H. Perkins, all of Brooklyn; J. B. Bach, East Orange, N. J.

Daylight Prism Co., of Pennsylvania, Philadelphia, Pa.; $575,000, commencing with $600; to diffuse rays of light, to build factories, etc.; G. C. MacIntire, J. S. Cummings, T. E. Bannon, J. E. Cummings and F. H. MacIntire, all of Philadelphia.

Luminous Prism Co., Chicago, Ill.; $1,500,000, commencing with $50; to manufacture prismatic and other illuminating glasses; J. H. Miller, W. E. Whipple, H. L. Clark, W. C. Gunn and Wm. C. Brooks, all of Chicago.

Columbia Tobacco Co., Springfield, Mass.; $500,000, commencing with $50; to manufacture and sell machinery used in connection with the tobacco business; E. A. Chapman, Westfield, Mass.; S. C. Hall, J. W. Lull, Clinton Phelps and H. H. Gridley, Springfield.

Helios Carbide Specialty Co., Atlantic City, N. J.; $10,000, commencing with $10,000; to manufacture and sell calcium carbide and the machinery used in generating gas from the same; John J. Rochford, A. W. Bailey and John C. Risley, Atlantic City.

Standard Ball Bearing Caster Co., Newark, N. J.; $225,000, commencing with $1,000; to manufacture ball bearing and other casters and mechanical novelties; Algerron I. Sweeney, Michael Sugrue, Jr., and Chas. M. Meyers, all of Newark.

Connecticut Land & Beach Improvement Co., Jersey City, N. J.; $25,000, commencing with $1,100; to construct buildings, wharves, docks, etc.; Samuel A. Russell, Haddam, Conn.; Wm. T. Glover, 128 East 117th St.; Geo. C. Lee, 29 Broadway; and John T. Hand, 348 East 87th St., all of New York.

Crary Mfg. Co., New York; $500,000, commencing with $50; to manufacture and deal in typewriting machines; G. N. Morton, F. H. Garman, Franklin Everhart, P. A. Pickrell and C. R. Kelley, all of New York.

Kinetic Mfg. Co., New York; $5,000,000, commencing with $50; to manufacture and sell motors, engines, elevators, etc.; J. H. Young, F. J. Oppenauer and E. P. Taylor, of Brooklyn, N. Y.; Chas. L. Easton and H. F. Hodges, New York.

Central Mfg. Co., Cleveland, O.; $20,000, commencing with $4,000; to manufacture and sell all kinds of novelties; H. S. Lichtenstein, Grace L. Lichtenstein, W. S. Bowler, Sam Freedman and W. J. James, all of Cleveland, O.

Standard Brake-Shoe Molding Co., New York; $300,000, commencing with $500; to manufacture brake shoes and other railway devices; Wm. C. Nunn, Toronto, Ont.; W. G. Abbott, A. A. Kelberg and Samuel Hutt, of Brooklyn, N. Y.; W. H. Laird, New York.

W. W. Wood Co., Wheeling, W. Va.; $100,000, commencing with $50; to manufacture and sell all kinds of building materials, etc.; J. S. Cost and P. R. Cost, Clarksburg, W. Va.; W. W. Wood, C. A. Wood and Lewis Newman, of Wheeling.

Iroquois Portland Cement Co., Buffalo, N. Y.; $1,000,000, commencing with $100; to manufacture Portland cement and all things pertaining to said commodity, including necessary buildings; J. S. Hertel, E. L. Davis and J. C. Bertrand, of Buffalo; A. D. Coffin, Oakfield, N. Y.; W. E. Webster, Batavia, N. Y.

Hunter Mfg. Co., Jersey City, N. J.; $250,000, commencing with $1,000; to manufacture and sell railway supplies and equipment; Fred. H. Hitchcock, New York; Frederic W. Hunter, Cranford, N. J.; Frank G. Gourley, Stamford, Conn.

Wisconsin Steel Co., New York; $5,000,000, commencing with $500; to manufacture iron and steel; H. S. Barnes, Chas. P. Howland, A. W. Johnson, E. O. Holter and L. A. Wilson, all of New York.

Trinidad River Transportation & Development Co., Charleston, W. Va.; $100,000, commencing with $50; to operate water power and construct docks, warehouses, etc.; E. L. Squire, W. S. Perry, C. E. Greet, S. J. Proctor and W. H. Morris, Charleston.

Vacuum Gas Engine Power & Machine Co., Mount Holly, N. J.; $100,000, commencing with $1,000; to manufacture gas engines, water wheels, dynamos, etc.; Chas. A. Wilson, Philadelphia, Pa.; Thomas Small, Camden, N. J.; B. W. Story, John B. Davis and Mark R. Sooy, Mount Holly.

Broxboro Engineering Co., New York; $100,000, commencing with $100; to conduct a civil, mechanical and electrical engineering business; R. H. Beach, East Orange, N. J.; Walter Knight, Staten Island, N. Y.; T. J. Moncks, James Curran and Rodney Haines, New York.

Missouri Industrial Mfg. and Land Improvement Co., Charleston, W. Va.; $5,000,000, commencing with $25; E. L. Squire, A. A. Fellows, C. H. Fisher, S. J. Proctor and S. W. Nichols, Charleston.

Mahoning Ore & Steel Co., Philadelphia, Pa.; $5,000, commencing with $500; to manufacture iron and steel; Treas., Alex. P. Robinson, Philadelphia; directors, Powell Stackhouse, Wallingford, Pa.; J. W. Townsend, Bryn Mawr, Pa.; Josia M. Bacon, Philadelphia.

Righy Water-Proofing Co., Jersey City, N. J.; $300,000, commencing with $5,000; to conduct a manufacturing or mining and trading business; H. C. Howells, Jr., Frank S. Howells, Walter Hoffmann, Frederick Starbuck and Rudolph G. Paul, all of New York; Albert C. Wall, South Orange, N. J.

Colonial Construction Co., Jersey City, N. J.; $100,000, with all paid in; to build and construct railways, waterworks, etc.; Edward W. Barnes and Wm. G. Hall, Perth Amboy, N. J.; Frederick P. Woodruff, Elizabeth, N. J.

Boyles Engineering Co., New York; $1,000,000, commencing with $100; to manufacture and deal in all kinds of engineering materials; E. R. Holden, F. Prentice, A. L. Roeder and A. P. Zemansky, New York; L.C. Bayles, East Orange, N. J.

Larchmont Park & Development Co., Camden, N. J.; $250,000, commencing with $1,000; to conduct the business of an electric company in all its branches; to do a general real estate business; Wm. G. Dannals, Magnolia, N. J.; Fred. C. Bower, Philadelphia, Pa.; Paul P. Elkington, Ardmore, Pa.

Interstate Dredging Co., Jersey City, N. J.; $150,000, commencing with $4,000; to conduct a general dredging business, to build docks, etc.; W. Butler Duncan, Westchester, New York; Jas. P. Steers, 603 Madison Ave., and Robert W. Stuart, 85 Park Ave., New York; Roger L. Young, Brooklyn, N. Y.; Samuel F. Lynch, Ridgewood, N. J.

Pennsylvania & New England Transportation Co., Jersey City, N. J.; $10,000, commencing with $1,000; to conduct a mining and transportation business; Chas. J. Langdon, Elmira, N. Y.; Austin Lathrop, New York; James Kerr, Clearfield, Pa.; John McGee, Watkins, N. Y.; William Brinckerhoff, Jersey City.

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